

Copyright
by
Oralia Green
2007

The Treatise Committee for Oralia Green certifies that this is the approved version of the following treatise:

**CLOSING PARTICIPATION GAPS:
EXPLORING THE FACTORS INFLUENCING HISPANIC
STUDENTS' PARTICIPATION IN A DUAL ENROLLMENT
PROGRAM**

Committee:

John E. Roueche, Supervisor

Norvell W. Northcutt

Walter G. Bumphus

Cynthia S. Salinas

Ricardo J. Solis

**CLOSING PARTICIPATION GAPS:
EXPLORING THE FACTORS INFLUENCING HISPANIC
STUDENTS' PARTICIPATION IN A DUAL ENROLLMENT
PROGRAM**

by

Oralia Green, B.A.; M.Ed.

Treatise

Presented to the Faculty of the Graduate School of
The University of Texas at Austin
in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Education

The University of Texas at Austin

August 2007

Dedication

*In loving memory of my father,
Estan Rodriguez
And brothers,
Manuel, Eloy, Esmundo, and Thomas Rodriguez
And in honor of my mother,
Erminia Vasquez Rodriguez from whom I inherited my strength*

Acknowledgements

This study could not have been completed without the assistance of many individuals. First and foremost, I must thank the Lord for answering my prayers.

Special thanks are in order to Houston Community College-Northeast (HCC-NE) and Sam Houston High School (SHHS), especially the faculty and wonderful students who willingly committed their time to share their points of view. They provided a great deal of information which was so valuable to this study. As well, I wish to acknowledge Dr. Margaret Ford, president of HCC-NE, and Ms. Aida Tello, principal of SHHS. They helpfully provided support for this project.

The assistance of my committee members, Dr. John Roueche, Dr. Norvell Northcutt, Dr. Walter Bumphus, Dr. Cynthia Salinas, and Dr. Ricardo Solis, is greatly appreciated. They were immediately accessible and provided valuable guidance and assistance with the overall direction of the research.

This journey would not have been possible if it were not for Dr. Roueche. At a time when my future might have taken a different direction, he stepped in. I will always be grateful for his confidence in me.

Heartfelt thanks to my husband Richard who stood by me through thick and thin, for better and for worse. He sacrificed a lot during these past years. His patience, love and support made it possible for me to reach my goal.

I thank my brother, Stan, who has always believed in me and has always been proud of my achievements.

I also wish to thank my very dear friend and mentor Mr. Alex Prince, who has given selflessly throughout the years. His encouragement has been my beginning. I thank him for his wisdom, guidance and endearing spirit.

To my friend, ArianCamila, who is so young and yet so wise. She was my sounding board, listening even when I made no sense. I cherish her friendship and support.

Many people in my life contributed to this endeavor, including Dr. A.E. Maldonado, Dr. Craig Follins, and members of Block 60. Dr. Jonathan King was my cheerleader. When I lingered, his enthusiasm encouraged me to pick up the pace. I appreciate them all.

Thanks also are in order to Isabel Watkins, Marilyn Lewellen and Dr. Norma Perez for their feedback.

Last but certainly not least, Dondi and Dex, reminded me that one who gives up never gets anywhere. I give them all my love.

**CLOSING PARTICIPATION GAPS:
EXPLORING THE FACTORS INFLUENCING HISPANIC STUDENTS'
PARTICIPATION IN A DUAL ENROLLMENT PROGRAM**

Publication No. _____

Oralia Green, Ed.D.

The University of Texas at Austin, 2007

Supervisor: John E. Roueche

The study examined factors that influenced high school students' participation in a college dual enrollment program. The purpose was to determine why more students from a large high school with a predominately Hispanic enrollment did not participate in a dual enrollment program. The sample design included college-bound high school juniors and seniors participating and not participating in a dual enrollment program. Family and teacher influences emerged as salient predictors of participation, while factors such as a lack of information, academic un-preparedness and a lack of qualified teachers to teach dual enrollment were associated with internal barriers to participation.

TABLE OF CONTENTS

CHAPTER ONE	1
INTRODUCTION TO THE STUDY	1
Background to the Study	1
Statement of the Problem	6
Statement of Purpose	7
Research Questions	7
Assumptions	7
Limitations of the Study	8
Significance of the Study	8
CHAPTER TWO	10
REVIEW OF RELATED LITERATURE	10
Introduction	10
Closing the Gaps	12
<i>Major Events Connected to Closing the Gaps</i>	14
<i>Important Next Steps to Take to Reach the Targets of Closing the Gaps</i>	17
<i>Summary</i>	17
Hispanics: A Growing Population	18
<i>The Hispanic Labor Force</i>	19
<i>Elementary and Secondary School Enrollment</i>	20
<i>Enrollment in Higher Education</i>	23
<i>Hispanic-Serving Institutions (HSIs)</i>	24
<i>Summary</i>	25
Dual Enrollment: Policies and Practice	26
<i>Dual Enrollment Programs Today</i>	27
<i>Types of Dual Enrollment Programs</i>	32
<i>State Policy and Oversight</i>	33
<i>Admission and Student Eligibility</i>	36
<i>Finance</i>	40
<i>ADA and FTE Funding</i>	42
<i>Instructors</i>	43
<i>Location and Student Mix</i>	45
<i>Course Content</i>	47
<i>Credits Earned</i>	48
<i>Program Evaluation</i>	49
<i>Texas State Policies</i>	50
<i>Summary</i>	51
CHAPTER THREE	54
METHODOLOGY	54

Research Design.....	54
<i>Research Questions</i>	54
<i>Research Settings and Populations</i>	55
<i>Research Timeframe</i>	55
<i>Data Collection</i>	56
<i>Research Relationships</i>	56
<i>Informed Consent</i>	57
<i>Anonymity and Confidentiality</i>	57
<i>Protecting Participants from Harm</i>	58
<i>The Interview Guide</i>	58
<i>Question Formulation</i>	59
<i>Asking the Questions</i>	59
<i>Scheduling Appointments</i>	60
<i>Interview Location</i>	60
<i>Recording</i>	60
<i>Selecting Samples</i>	61
<i>Sample Size</i>	61
<i>Sample Frames</i>	62
<i>Data Analysis</i>	62
<i>Validity and Reliability</i>	63
Procedures.....	66
Data Collection.....	69
Data Analysis.....	69
CHAPTER FOUR.....	71
FINDINGS.....	71
Research Goals.....	71
Overview of the Study.....	71
<i>Study Sample Description</i>	71
<i>Procedures</i>	72
<i>Interview Questions</i>	74
<i>Data Collection and Analysis</i>	75
Descriptive Findings of the Study.....	76
<i>A Profile of the Houston Independent School District (HISD)</i>	76
<i>A Profile of Sam Houston High School (SHHS)</i>	77
<i>A Profile of Houston Community College (HCC)</i>	78
<i>A Profile of Houston Community College-Northeast (HCC-NE)</i>	79
<i>Research Question Number One</i>	82
<i>Research Question Number Two</i>	84
<i>Research Question Number Three</i>	94
<i>Research Question Number Four</i>	122
Chapter Summary.....	131

CHAPTER FIVE	133
SUMMARY, DISCUSSION, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS	133
Discussion of Findings.....	138
Practical Implications.....	151
Conclusion	155
Recommendations.....	158
Recommendations for Further Research.....	163
APPENDIX A	164
Letter of Consent.....	164
APPENDIX B	166
Introductory Remarks	166
APPENDIX C	168
Focus Group Interview Guide: Juniors and Seniors Participating in Dual Enrollment.....	168
APPENDIX D	169
Focus Group Interview Guide: Juniors and Seniors Interested in College, Not Participating in Dual Enrollment	169
APPENDIX E	170
In-depth Interview Guide: High School Teachers and Counselor	170
APPENDIX F.....	171
In-depth Interview Guide: Dual Credit Liaison	171
GLOSSARY	172
BIBLIOGRAPHY	174
VITA	190

CHAPTER ONE

INTRODUCTION TO THE STUDY

America's community colleges and its secondary schools aren't talking enough, some educators say, and students are paying the price.

Patricia Troumpoucis

Background to the Study

According to the Texas Higher Education Coordinating Board (THECB) Closing the Gaps: The Texas Higher Education Plan (2000), the Texas legislature enacted a bill that directs the state's coordinating board to "identify, attract, enroll and retain students that reflect the population of the state of Texas" (p.1). HB1678 proposed that institutions of higher education develop specific goals to enroll and graduate students that reflect the population of their service areas. Institutions of higher education are charged with addressing campus diversity issues because many Texans are not taking advantage of educational opportunities.

In response to HB1678, the THECB produced a state higher education plan called *Closing the Gaps by 2015*. The plan is a changing, adapting document that provides policies and procedures and addresses goals to improve higher education issues. The plan alerts higher education officials that the college enrollment rate of nineteen year-olds in Texas is 10 percent below the national

average. As a result, institutions are asked to initiate efforts to address the educational needs of the state's population.

One of the most critical reasons for the plan is the fact that Hispanics are participating in college at rates much lower than other racial or ethnic groups. State officials worry that the lack of progress in higher education attainment between Hispanics and other racial or ethnic groups will weaken the state's economy if the gap continues to widen. Consequently, the state wants institutions of higher education to expeditiously ensure that more Hispanics attend college.

Since the publication of the higher education plan, postsecondary institutions in Texas have been challenged to improve their educational processes. As a result, postsecondary institutions immediately began to set goals and more students enrolled in college. According to the THECB, a major reason for the boost in participation is the fact that more students are taking advantage of dual enrollment courses. Despite the rise in college participation, however, Hispanics, which reflect the state's fastest growing population, have significantly lower college participation rates than any other racial or ethnic group. Figures indicate that in 1998, 15.5 percent of Anglo Texans between the ages of 18 and 34 enrolled in higher education. African Americans enrolled at 10.1 percent, while Hispanics trailed at 9.4 percent (Texas Higher Education Coordinating Board, 2005).

According to the THECB study, Texas is expected to become a minority-majority state in 2008. The agency suggests that, "Hispanics will account for

more than 40 percent of the state's population" (p.07), and when combined with African Americans, minorities will represent the majority population, a major reason why educational participation rates for minorities is so important.

The Texas Higher Education Coordinating Board's, *State of Texas: Priority Goal for Higher Education* report (n.d.) acknowledges that the population in Texas grew by 2 percent each year from 1990 to 1997 compared to only 1.1 percent nationally. According to the report, the state anticipates growing by 25 percent from 1990 to 2010. More importantly, Hispanics will comprise 40.5 percent of the total population by 2025, contributing to the majority race when combined with African Americans. However, the report projects a depressed Texas economy unless Hispanics start earning higher education degrees that lead them to higher wages.

The current educational outlook for Hispanics is dismal because educational institutions are not doing enough to encourage Hispanics to participate in higher education. Moreover, educational institutions are not keeping up with the growing Hispanic population growth. Even though the state has added many more colleges and students, more work still needs to be done to prevent devastation in the state's economy.

A column in The Houston Chronicle newspaper (Everett-Hayes, 2004) says, "Colleges Struggle to Boost Hispanic Numbers/Matriculation of Blacks and Whites is Ahead of Target." The reporter claims that Texas colleges are not

meeting their goals to enroll more Hispanics, even though their enrollment improved. As an example, enrollment goals for African American and white students were achieved ahead of schedule, but not for Hispanics. Their college participation rates are still below standards. College enrollment statistics in Texas is 5 percent for whites, 4.6 percent for African Americans and 3.7 percent for Hispanics. We anticipate a tremendous growth among the Hispanic population, but their college participation rates will shift in the opposite direction unless educational institutions push harder to encourage them to participate.

The article goes on to say that some community colleges in the Houston area such as the North Harris Montgomery Community College District have reported adding classes and services to attract the growing Hispanic community. College representatives explain that more Hispanics are in fact using their system as a stepping-stone to transfer. The College district is trying to reach out to Hispanic students by setting up college satellites in predominantly minority areas and boosting the number of dual credit classes.

Not all colleges in Texas, however, make efforts to attract Hispanics. The local newspaper reports that state officials are still trying to analyze numbers to determine what ethnic groups are contributing to enrollment growth.

Summary

Higher education institutions must commit to mobilizing the Hispanic population through dual enrollment and other services. They must ensure that every Hispanic understands that the only way for them to survive is through education (Finn, 1999). Furthermore, institutions of higher education must directly address the challenges that prevent Hispanics from participating in higher education.

The proportion of Hispanics attending college is insufficient and at the same time the demography is expanding (Heintze & Hays, n.d.). By 2015, the makeup of high school graduates in Texas will be very diverse but the group with the least educational attainment will represent the largest percentage of the population. As a result, the future of Texas is threatened and the state will lack a productive workforce unless institutions of higher education close the educational gaps that exist among the racial groups.

The existing economy is strong, but the state anticipates a crisis if new initiatives are not implemented quickly to produce an educated workforce (Texas Higher Education Coordinating Board, 2000). Martinez (2004) urges colleges to begin by revising and customizing their mission statements to address improved services for underrepresented populations, otherwise problems will ensue.

This study consists of five chapters. The first chapter is the introduction which includes: the background to the study, statement of the problem, purpose statement, research questions, assumptions, and significance of the study. The

second chapter is a review of the literature. It provides brief overviews of the state's higher education plan, the growth of Hispanics, and a section on dual enrollment. The third chapter names the methodology, explains why the methodology is sound, why it is appropriate for the research, and the procedures used. The fourth chapter presents the findings as a result of the research and answers the four research questions. Lastly, chapter five indicates the conclusions drawn from the research and makes recommendations.

Statement of the Problem

Hispanic enrollment at Houston Community College (HCC) has increased, but the targets set by the Texas Higher Education Coordinating Board (THECB) for closing educational gaps still fall below expectations. To support at least one of the goals, Houston Community College-Northeast (HCC-NE) offers high school students the opportunity to participate in dual enrollment. However, in one feeder high school in which 91 percent of the total enrollment is Hispanic (Houston Independent School District Profiles, 2005-2006), only a small percentage of juniors and seniors participate. What factors influence Hispanic high school students' participation in the dual enrollment program offered by Houston Community College-Northeast?

Statement of Purpose

The study focuses on college bound Hispanic high school juniors and seniors who are participating or not participating in dual enrollment. It seeks to understand why they choose to participate or not participate in dual enrollment, and explores the factors that impede or influence participation. The study also serves to inform educational policy and administrative practice for the purpose of meeting the state's goals of closing educational participation gaps.

Research Questions

1. How do students from Sam Houston High School perceive dual enrollment?
2. How are students from Sam Houston High School encouraged to participate in dual enrollment?
3. What barriers prevent students enrolled at Sam Houston High School from participating in dual enrollment?
4. How do HCC-NE and Sam Houston High School collaborate to attract Hispanic students to the dual enrollment program?

Assumptions

This study assumes that family support, parental encouragement, family socio-economic status, and the presence of at-risk factors facilitate or impede

participation in dual enrollment. Hispanics are disadvantaged when considering the following assumptions: They are prone to have parents with no collegiate experiences, their parents participate less in their school activities, they are likely to have been raised by single parent families, they have older siblings who drop out from high school, and they are more likely to have a history of low academic performance (Cabrera & La Nasa, 2002).

Limitations of the Study

The study is limited by several factors. It focuses on just one high school rather than a select few. The possibility exists that the study excludes critical data from other Hispanic-serving schools. Since the study is particular to one specific high school, it is possible that the situation at this school contains bias unique to the school. Further, the study examines the factors that influence participation in one dual enrollment program at one specific college, rather than participation at other colleges in general. Since the overall sample is small, the results are only directed at the specific group of students within the parameters of the study and thus cannot be generalized to other ethnic or racial groups or secondary schools.

Significance of the Study

The significance of the study lies in its contribution to closing college participating gaps, an initiative set by the Texas Higher Education Coordinating

Board. The study is critical for understanding why a low proportion of Hispanic high school students participate in a dual enrollment program and for understanding the factors that influence or impede participation in the program. Educational leaders will gain a better understanding of how to design a dual enrollment program, and how such efforts can benefit state initiatives as well as secondary and postsecondary institutions.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

The first plan in Texas for improving minority participation in higher education was created during 1983 and 1988. During that time, Governor William P. Clements independently directed the *Texas Educational Opportunity Plan for Public Higher Education*. A second plan, *Access and Equity 2000*, continued the efforts of the first initiative. Thereafter in 2000, Governor George W. Bush realized that Hispanics and African Americans were lagging dangerously behind whites in higher education attainment. Thus, the Governor requested the Texas Higher Education Coordinating Board (THECB) to come up with a plan to improve educational participation rates. Hence, the Texas Higher Education Coordinating Board (n.d.) responded by establishing a higher education plan called *Closing the Gaps by 2015*.

In the report, *Closing the College Participation Gap: A National Summary*, Ruppert (2003) alerts states of a serious demographic surge. She cautions postsecondary institutions of unfavorable situations if the needs of minorities are not addressed. As a matter of fact, the author compares educational attainment rates between the U.S. and other countries and suggests if the college participation rate in the U.S. does not improve, the nation can potentially fall

further behind other successful countries. She adds that improvement is not reached until the right proportion of the population is served.

The year 2005 was critical for enhancing participation rates in Texas, according to a report titled *Texas Borderlands: Frontier of the Future* (Shapleigh, 2007). In that year, an additional 150,000 people were expected to enroll in college, including an additional 20,958 white students, 23,537 more African Americans, and an extra 102,606 Hispanics. By 2005, however, only 70.1 percent of the total goal for Hispanics was achieved. In contrast, quotas were exceeded for African Americans and whites, respectively representing 126.6 percent and 289.9 percent of the target rates. The evidence is clear that institutions of higher education need to press ahead to encourage more of the Hispanic population to enroll. Specifically, 30,661 more Hispanics need to enroll within a year, but if only 18,000 Hispanics are enrolling annually, someone is not doing their job. Hispanics continue to lag further behind in college participation and yet, institutions of higher education continue to set low targets. Despite low turnouts, institutions continue to set weak goals and still fail to achieve their targets. More importantly, according to the report, no one is held accountable. Schmidt (2003) says, "In many parts of the country, colleges' efforts to serve minority populations remain focused almost solely on black students, even where local Hispanic populations are burgeoning" (p.3).

Murdock et al (2003) say that only a small number of Hispanic children are graduating from high school and that many of them come from families where higher education is rarely discussed. The authors argue that a prosperous future is dependent on an advanced workforce and if Hispanics fail to successfully contribute to higher education, the state can lose its competitive spirit and risk attracting and sustaining high-wage jobs and improved tax revenues. As previously stated, the goal is to enroll 500,000 new students by 2015. The expectation is that 200,000 persons will enroll automatically, but at least 300,000 must be persuaded to enroll from groups who would not otherwise participate in higher education.

Closing the Gaps

One reason for the Texas higher education plan, according to Brown et al (2001) is to encourage institutions of higher education to take specific steps for ensuring a well-educated state. Policymakers are concerned that the population growth will not add to college enrollments. More specifically, if Texas does not take steps to improve higher education among Hispanics, losing 35 to 40 billion dollars per year will become a stark reality. Specific measurable goals must be developed to address gaps in education and income. Moreover, mechanisms that track the success of institutional goals must be developed in order for the plan to work.

The primary purpose of the Texas higher education plan is to improve the deficits in college participation, student success, program excellence and research. The participation and success portion of the plan seeks to recruit, retain, and graduate more people. As previously mentioned, goals were specifically developed from concerns that the proportion of the state's population does not participate in higher education. An important objective is to increase college enrollment by the year 2015. Five hundred thousand students are needed to offset the fast-growing demographics in Texas. More importantly, however, at least 68 percent of that growth is expected to come from the rapidly expanding, but least educated Hispanic population (Texas Higher Education Coordinating Board, Participation and Success, n.d.).

Ruppert (2003) views the profound growth of the U.S. Hispanic population as staggering. The author estimates that Hispanics will make up 50 percent of the entire population within the next 15 years. She predicts serious educational gaps between whites and Hispanics, especially in retention and completion rates. Also, the lack of educational success is attributed to the growing number of Hispanic immigrants who are entering the country without a high school education. The problem is compounded with rising educational expenses in the U.S. and a lack of funds in many states. When money is tight educational institutions are left to fend for themselves. They are expected to do

more with less which means relying on tuition and fee dollars collected from students.

The rate of higher education enrollment in Texas is a mere 5 percent, compared to a nationwide average of 5.4 percent. The variation seems minute, but the significance is in the shortfall of 76,000 students. Texas also ranks fifth in higher education enrollment when compared to 10 of the nation's largest states. By 2015, the state wants to increase its college participation rate to 5.7 percent, which represents 500,000 students, of which 300,000 are expected to start out at community colleges.

Realistically, the THECB thinks that everyone should attend college but the state agency places more emphasis on closing participation gaps among Hispanics because the change in demographics can dangerously reduce the current overall five percent participation rate if specific targets are not achieved.

Major Events Connected to Closing the Gaps

The state's higher education plan established in October 2000 was evaluated after five years. The Texas Higher Education Coordinating Board (THECB) reviewed the status of the four goals and determined that the targets for increasing college participation were achieved for African American and white populations, but not Hispanics. Hispanic participation reflected improvement, but the overall goal was not achieved.

Data from the Texas Higher Education Coordinating Board Division of Planning and Information Resources (THECB, Participation Forecast, 2005-2015, 2005) show that the state is not on target for educating its people, primarily because of the rising Hispanic population. According to the Division, no one planned for the rapid expansion of the state's Hispanic population, which is expected to pose particular challenges. The state met its bottom line college participation rate, but when the individual ethnic or racial total was calculated, Hispanic participation came up short. To accommodate the population expanse, Texas must add another 100,000 Hispanics to its higher education rolls. This should help meet the state's goal of enrolling 5.7 percent of its total population. The state makes it clear that success is not achieved unless the goals for every ethnic or racial group are accomplished.

The following table illuminates participation progress for Hispanics in Texas from fall 2000 and fall 2004. The average increase each year, according to THECB (2005) *Closing the Gaps by 2015: 2005 Progress Report* was approximately 18,000 students. However, the participation expansion made little impact on the initial goal of 340,000 students.

Progress Toward 2005 Participation Targets

Annual Enrollment(Public and Independent Institutions)	Fall 2000	Fall 2004	Change from 2000 to 2004: Number/Percent	2004 (Under) Over 2005 Target	2005 Target	Percentage of Targeted Increase for 2005 Achieved
Total	1,019,879	1,207,881	188,002 18.5%	38,881	1,169,000	126.0%
African American	108,463	138,254	29,791 27.5%	6,254	132,000	126.6%
Hispanic	237,394	309,339	71,945 30.3%	(30,661)	340,000	70.1%
White	570,042	630,807	60,765 10.7%	39,807	591,000	289.9%
<i>The plan's 2005 targets were updated to reflect independent institution enrollments. The first targets adopted in 2000 called for increasing total enrollment by 150,000 students over fall 2000 levels, while increasing African-American enrollment by 22,200 students, Hispanic enrollment by 101,600 students, and white enrollment by 24,100 students (p.5).</i>						

More recently, a statement was made in *Texas Higher Education Facts-2006* (Texas Higher Education Coordinating Board, 2006) that Texas was not meeting its goals even with the increase in fall 2005 over fall 2004. Overall, Hispanics have helped increase the participation rate but still fail to enroll in sufficient numbers. THECB suggests that the success of the higher education plan is contingent on appropriate funding and the willingness of higher education institutions to develop and implement specific goals that will serve the state's population.

Important Next Steps to Take to Reach the Targets of Closing the Gaps

Despite all predictions THECB strongly believes in a profitable economy. Nevertheless, institutions must do more to reverse the shortfall in the number of people who are not taking advantage of higher education. Additional exemplary programs are needed and more research projects must be completed. THECB states that, “The percentage of recent high school graduates who enter college is not increasing, suggesting a need to enhance efforts to encourage them to prepare for, enroll, and succeed in college” (p. 5).

The intent of the state’s higher education plan is not to provide a solution to every challenge. It is a way to predict participation rates in Texas and to offer suggestions for removing barriers to the future prosperity of Texas. Through this plan, institutions of higher education are asked to provide more opportunities for their people and to establish specific targets that work.

Summary

HB 1678 anticipates that improved recruiting and retention efforts will significantly impact higher education enrollment for Texans (Brown, et al, 2001). Yet, there is still much work to be done because Hispanics are not reaching college participation targets. Community and technical colleges are expected to set priority standards for serving their communities and for strengthening existing flaws in higher education.

According to *Access and Equity 2000: Ensuring the Future of Texas* (Texas Higher Education Coordinating Board, n.d.), states that do not address the results of change can expect high unemployment rates. Many jobs require a college degree and there is concern that much of the Hispanic population is unable to fill meaningful positions because they lack the skills, education and training needed for high-wage jobs. Colleges often assume they are providing educational opportunities by setting low tuition rates, but this is not the only method of providing access. Institutions of higher education must do more than lower tuition to open the doors of opportunity for Hispanics.

Sanders (2003) president of Education Commission of the States argues that the issue is not just about adding more minorities to the college rolls. He warns of a nation-wide crisis if the essential goals of higher education among all ethnic groups are not achieved. One can expect decreased tax revenues, increased welfare applications and higher poverty rates if more high school graduates fail to enroll in college. More importantly, closing college participation gaps between whites and Hispanics is especially important to ensure economic prosperity in the future.

Hispanics: A Growing Population

The Hispanic population began to expand in the nation's top 100 cities between 1980 and 2000, becoming the largest minority group representing 13

percent of the total U.S. population (Suro & Singer, 2002). A project from the Pew Hispanic Center (2005) titled, *Hispanics: A People in Motion* describes the Hispanic population as a fast-growing, fast-changing population that is now the country's largest minority. They are a very diverse people with a variety of cultures. Their common language is Spanish but some prefer to speak only English; others speak only Spanish and many are bilingual. U.S. born Hispanics speak mostly English.

Hispanics in the U.S. come from different countries but Mexican-Americans make up the largest subgroup comprising about 66 percent of the total Hispanic population in this country. By the middle of the twenty-first century, the U.S. can expect about 98 million Hispanics, accounting for about one-fourth of the total U.S. population.

Apodaca (2003) projects that by the year 2030; Hispanics in Texas will constitute at least half of the state's population. Whites will shrink from 53 percent to 33 percent and African Americans from 11.6 percent to 9.4 percent. Hispanic students will account for 54 percent of public K-12 enrollments and 48 percent of higher education enrollments.

The Hispanic Labor Force

The report, *Hispanics: A People in Motion* (Pew Hispanic Center, 2005), argues that Hispanics are more likely to seek employment than any other group.

They are younger than any other racial or ethnic group and comprise 13% of the U.S. labor force. Moreover, by the year 2020 Hispanics will assume at least half of the growth in the U.S. labor force. Unfortunately, the current unemployment rate for Hispanics in this country is higher than for any other racial or ethnic group. Hispanics work in lower-skill jobs and are paid less than the average worker. Poverty is a major barrier to educational access. In the year 2000, 21 percent of Hispanics lived in poverty of which 28 percent were children.

Elementary and Secondary School Enrollment

Also in the year 2000, Schmidt (2003) reported that about two-thirds of Hispanics lived in large urban cities. Students comprise 25 percent or more of public school enrollments in states like Arizona, California, Nevada, New Mexico, and Texas. In general, however, most Hispanics live in areas where they represent a smaller share of the population. They attend some of the most segregated and poorly financed schools where many of the teachers lack the specific training to help Hispanic children.

Educational performance for Hispanics has improved, but they are not as likely as white students to participate in advanced courses, although more Hispanic students take advanced placement exams. They are more likely to participate in foreign language classes than white students or any other ethnic group. Many have minimal exposure to English and often experience problems as

a result. Children living in homes where Spanish is mostly spoken are more likely to have parents without a high school education.

Perna & Titus (2005) suggest that programs that prepare students for college are designed to encourage college participation as well as parental involvement. They are also designed to improve student behaviors, reduce high school dropouts and increase the chance of Hispanic youth attending college. Moreover, Justiz (1995) argues that Hispanic parents shy away from these programs. As a result, Hispanic children often lack parents as role models and mentors and therefore, lack an understanding or willingness to guide them through the educational process. Explaining college requirements and the rewards of a college education are essential elements of the college readiness process. Unfortunately, many children miss out on these opportunities because their parents lack in college experience.

In his report titled *Americans View Higher Education as Key to American Dream: Black and Hispanic Parents Value Higher Education the Most*, Immerwahr (2000) addresses the value of education for Hispanics. The report claims that 65 percent of Hispanics say that a college education is essential for their children's success and that Hispanics place the value of a college education highest over whites or any other ethnic group. But the participation rate for whites is double the rate for Hispanics.

Hispanics are one of the most underrepresented groups in higher education according to *Status and Trends in the Education of Hispanics* (National Center for Education Statistics Institute of Education Sciences, 2003) but despite the odds, Hispanics have made great strides in educational performance. For example, national assessment rates in reading, math, and science have improved, but they continue to show the highest suspension and dropout rates over other racial or ethnic groups. Policymakers believe the deficits are largely due to immigrants who did not graduate from high school in their country. In the United States, immigrants count as high school dropouts if they do not graduate from an American high school, according to the U.S. Department of Education (2005). In fact, government officials report the dropout rate for Hispanics born outside the U.S. as 44 percent and 15 percent for first generation Hispanics. Even though national assessment rates have been progressive, performance levels continue to be lower than those of white students. Collison (1999) says, “The gap in education comes at a time when the fastest growing segment of the job market requires personnel with a college degree. Low skilled jobs are disappearing and this is affecting Hispanic workers the most” (p. 3). Hispanics will face economic hardships because they lack the skills, education, and training that are essential in today’s job market.

Enrollment in Higher Education

In her report, *Hispanic Students and Community Colleges: A Critical Point for Intervention*, Saenz (2002) states that Hispanics are disproportionately enrolled in community colleges and that they are underrepresented at four-year public institutions. She argues that a sense of responsibility together with a low income, explain why so many Hispanics attend community colleges. Accordingly, the National Center for Education Statistics Institute of Education Sciences (2003) reports that more than half of all minorities are educated in community colleges.

Transfer and persistence rates for Hispanics are among the lowest in the country. They drop out of college at rates greater than any other racial or ethnic group without receiving any type of college degree.

Critics believe that community colleges are not necessarily a good thing for Hispanics, that they attend community colleges because they have no other choice. On the other hand, Martinez and Fernandez (2004) posit that Hispanics often choose community colleges for their vocational offerings and for adult education and remedial classes. Furthermore, community colleges are conveniently located; offer low tuition rates, and provide flexible schedules. Weekend and part-time classes are also features that attract Hispanics to community colleges.

More first generation Hispanics enroll in two-year colleges than any other ethnic group. They are more likely to work to support themselves while in school and are more likely to attend college part-time. Still others wait until their mid-twenties or later to start college and as a result stop short of earning a degree. Fry (2002) believes that institutions are doing what they can to ensure Hispanics make it through public school, but more effort should be made to help students participate and succeed in college. On the contrary, Williams (2002) questions the extent institutions of higher education are willing to serve the under-represented population. By 2012, postsecondary institutions are expected to enroll a more diverse under-prepared student, and by 2015, 45 percent of the population will comprise of needy Hispanic families. Community colleges will see this change as a great recruitment opportunity, but the demands for meeting their unique needs will be a challenge.

Hispanic-Serving Institutions (HSIs)

Hispanic-Serving Institutions (HSIs) are institutions where at least 25 percent of the college enrollment is Hispanic and where more than 50 percent of the total college enrollment is low-income. There are over 240 colleges that are designated as HSIs, according to Schmidt (2003). Texas is among several other states such as California and New Mexico where HSIs are primarily concentrated. Additionally, as the Hispanic population migrates geographically, more

educational institutions in other states are becoming HSIs. As a result, many more institutions are revising their missions to address the needs of Hispanics. Greater efforts are being made to recruit and retain Hispanic students, faculty, and staff, while the White House is working effortlessly to ensure Hispanics participate in higher education.

Summary

Schmidt (2003) argues that Hispanics are the least educated ethnic group, yet many institutions continue to focus their attention on other matters knowing that at every stage of the educational pipeline, Hispanics are not advancing. Hispanics continue to be critically underprepared, underrepresented and underserved in higher education, which explains why Harrell and Forney (2003) suggest that institutions of higher education need to improve recruitment and retention strategies for Hispanics, especially since so many of them are first in their family to attend college. As a priority, institutions should ask what is being done to prepare Hispanics for college.

A graph in the issue of *Hispanic* (Justiz, 1995), shows that 61 percent Hispanic students completed high school in 1973 and 1993. In those same years only 36 percent Hispanic students enrolled in college. Similarly, the data indicate that secondary and postsecondary school success for Hispanics in the twenty years between 1973 and 1993 have remained the same.

Dual Enrollment: Policies and Practice

Policymakers are starting to notice how quickly the world is changing.

The need for an educated society is quite evident; all the while the nation's secondary schools continue to show significant dropout rates. About seventy four percent of students nationwide complete high school on time. Of that number at least one quarter needs remedial reading or math when they enter college.

According to the National Center for Education Statistics Institute of Education Sciences (2003), students today indicate they will attend college, but many are not ready for college-level work. This situation concerns policymakers because studies have shown that remedial students drop out of college faster than non-remedial students, and they are more likely to drop out before reaching any goals. Remediation is a problem for several reasons: a) it affects the transition from high school to college, b) it increases the graduation time span, and c) it adds more stress on the student's pocket book.

As a result, state leaders hope to improve the educational process by easing the transition from high school to college. One way to do this is to hold secondary and postsecondary institutions accountable for students who are not prepared for higher education. Another way, according to Wetzstein et al (2002), is to promote programs such as dual enrollment which can effectively improve the nation's high schools.

The Education Commission of the States (2001) contends that states are starting to get more involved in offering high school students the opportunity to participate in dual enrollment programs. ECS recommends these programs because they (1) provide greater academic challenges, (2) save students time and money in college, (3) encourage high schools to better serve students and parents, (4) free-up campus space by accelerating graduation, (5) provide opportunities for students from rural areas, (6) encourage greater collaborations between secondary and postsecondary faculty and staff, (7) increase student aspirations, and (8) build coalitions between postsecondary institutions and their communities. To sustain an effective dual enrollment program, however, Andrews and Davis (2003) purport that involvement from public school board members and the college board of trustees is needed.

The following section addresses dual enrollment, discusses the range of program options, and examines the influence of state policies on program structure.

Dual Enrollment Programs Today

Dual enrollment programs provide early college opportunities for high school students who want to get an early start in college (Lords, 2000). Participants can earn high school and college credit simultaneously and the final grade is reflected on a college transcript. High school students are often admitted

as non-degree students and receive the same access and services as regularly enrolled college students. Collaborations between high school and college-level officials are crucial to ensure positive outcomes. With the right attitude, dual enrollment programs can provide challenging academic opportunities and can also encourage greater partnerships between secondary and postsecondary institutions (Blair, 1999).

The ECS Center for Community College Policy (2001) asserts that dual enrollment programs assist students in making the right choice toward a postsecondary education. Supporters of these programs maintain that students who participate in dual enrollment programs are more likely to pursue a higher education and eventually become productive citizens of society. They also believe that dual enrollment helps build bridges between secondary and postsecondary institutions—important linkages for education transitions.

Dual enrollment programs are not the same in every state or educational institution. For instance, some institutions charge their students tuition, while others waive it. Some schools have stringent admission requirements and others make it easier for students to participate in the program. *State Policies and Dual Enrollment Program Variation*, (Community College Research Center, 2003) compares two states. “Minnesota’s statutes require school participation and state funding, while Texas leaves many more program decisions up to the schools themselves” (p.4). Further, many states find the benefits of dual enrollment viable

avenues to postsecondary education and as a result are more financially supportive. Some secondary and postsecondary institutions play a very small role with dual enrollment, but others encourage students to participate as early as their junior year of high school. Postsecondary institutions often extend their offerings to student and learning support services such as counseling, advising, and library services.

Dual enrollment programs were previously reserved for students most likely to enroll and succeed in college. Proponents now believe that dual enrollment can benefit lower-achieving students and if exposed to a college environment and tougher academic standards, those students can also attain success. Dual enrollment is especially ideal for less advanced students because it serves to promote college awareness. Advocates believe that participation in a dual enrollment program will eliminate the need for remediation when the student enters college (Bailey et al, 2003).

Our country's K-12 and higher education systems are inadequate when compared to other educational systems worldwide, according to Boswell's (2000) *Building Bridges Not Barriers: Public Policies That Support Seamless K-16 Education*. Contributing to the problem are gaps between high school graduation standards and college admission requirements. Boswell maintains that there is too much institutional control and that educational institutions set policies without regard for one another. She gives testing as one example: By their senior year,

students must take the state exit exam and possibly the ACT or SAT. The examination often includes material not covered in high school. Thereafter, upon applying to college students are given another test; this time to determine course placement. Each test is different and many students are not prepared. Boswell argues the process can be discouraging, especially for students from low-performing schools.

One dilemma for educators and policymakers is how to give students the foundation they need at the secondary level so they are better prepared for postsecondary education and training. Hence, dual enrollment has been getting a lot of attention. Research suggests that such programs can help students transition from high school to college, resulting in postsecondary success (Emeagwali, 2005). As such, policymakers want to expand dual enrollment opportunities to engage a different kind of student. Unfortunately, few states have legislation that support outreach to low and middle-achieving students. States need to work harder at linking secondary and postsecondary education so that more students take advantage of such programs. Moreover, states should focus on their funding streams to ensure that students are not denied access to dual enrollment (Black Issues in Higher Education, 2004).

Dual enrollment programs have progressed since the early 1980s (Lum, 2004) and opportunities are getting better. Once available primarily to gifted students, offers are now extended to more diverse groups. Qualifying criteria,

tuition and fee payments, and program standards vary throughout the country. In most cases, class location and faculty are choices high schools and colleges are permitted to make. In addition, there is some flexibility to how dual enrollment coursework is credited. In some states, credit is given immediately after completion of the course and in others credit is awarded after the student enrolls in college. Also, high school students from all levels may take advantage of dual enrollment, but not every college offers it. More states have just begun to participate, however.

According to the ECS Center for Community College Policy (2001), dual enrollment programs can be stifled by location, admission criteria and tuition and fees. Too many restrictions can create barriers, especially for students who need the postsecondary experience. As a result, more states are focusing on equitable admissions and funding policies hoping to ensure access and quality standards as well as responsible management of funds.

All too often dual enrollment policies are unclear, perhaps because some states have not considered dual enrollment a priority. In a report titled, *State Dual Enrollment Policies: Addressing Access and Quality*, Karp, Bailey, Hughes and Fermin (2004) address some of the ways that state policies can interfere with the dual enrollment process. Specifically, they argue that state policies are often misinterpreted which cause inconsistencies or disparities in program implementation. Stringent admission requirements, for example, help dismiss

allegations that dual enrollment courses are not equal to college-level courses. Admission requirements also contribute to the quality of the student body and prevent postsecondary institutions from enrolling students simply to make their reports look good.

Some states have established innovative processes that link program quality with students from any economic and academic level. For example, Ohio requires its students to excel in the subject area of their dual enrollment course, but students are not required to be above average in non-dual enrollment courses. Florida has admission requirements for academic dual enrollment courses and a different set of requirements for technical courses enabling more students to take advantage of dual enrollment (Karp, et al, 2005).

Types of Dual Enrollment Programs

The report *Postsecondary Options: Concurrent/Dual Enrollment* from Education Commission of the States (2001) lists three types of dual/concurrent enrollment programs. First, there are *College-High School Programs* in which agreements are made between secondary and postsecondary institutions to offer college courses for credit. Postsecondary institutions establish the curriculum and use high school teachers with the same credentials as college faculty to teach the courses. Second, *Standard Dual Concurrent Enrollment Programs* allow high school students to enroll in college-level courses for credit. High School or

college faculty teaches the courses on the high school campus, at the college, or by distance education. Third, *Tech Prep or 2+2* programs provide an integrated high school/community college curriculum for professional or technical fields. Courses may be taught either by high school or community college staff.

Dual enrollment programs have different guidelines based on academic or technical program requirements, structures, and or funding mechanisms. Differences may result from state or institutional policies and or decisions. Some of these policies and decisions are addressed below.

State Policy and Oversight

In his article *Report Examines Dual Enrollment, Suggests Reforms*, Meyer (2004) states that, “It is not clear whether the hodgepodge of state legislation and policies governing dual enrollment are promoting or restricting participation, particularly among low and middle achieving high school students” (p. 10). Some community colleges have no policies pertaining to high school students in college-level courses, but university systems in the same states do.

Karp et al (2004) said that only 38 of the nation’s 50 states have dual enrollment policies. Of all participating states, only 18 require high schools to notify their students of dual enrollment opportunities. These school districts accept college credits earned by their students toward graduation. Additionally, colleges cannot deny a student access to their institution because the student is

still in high school. This does not mean that institutions are required to establish dual enrollment programs just that students must be given the option of enrolling in higher education. Institutions that do not have dual enrollment policies are free to establish and implement their own policies. Postsecondary institutions in New York, for example, may establish their own dual enrollment policies as well as college entry requirements. It is also possible for policy standards to vary across institutions within the same state. Two examples are City University of New York (CUNY) and Hudson Valley Community College (HVCC). Their eligibility requirements for dual enrollment programs are different and students can participate in the program depending on where they live or attend high school. Participation is also contingent on availability of resources and student needs. Because of funding constraints, authority is often left up to high schools and colleges to decide whether or not dual enrollment is feasible for them. Currently, it is not known whether dual enrollment is mandatory or voluntary in all states.

Boswell (2000) presents a number of policy issues between secondary and postsecondary institutions. She cites inconsistencies between institutional policies and institutional practices. Two examples are high school graduation standards and college admission requirements. The author argues that postsecondary institutions are not prepared to meet the anticipated needs of students educated in a standards-based K-12 environment. Furthermore, secondary institutions incorrectly assume the responsibility of their teachers ends

with college admissions rather than college success. Similarly, postsecondary institutions assume the responsibility of higher education begins with the admission process, rather than getting students prepared for college.

Hoffman (2003) suggests creating a seamless system of equity of access. The author argues, “While underrepresented students are taking advantage of postsecondary education, the benefits are unevenly distributed” (p.11). Many of these students fail to participate in special programs because they receive no information, have inadequate curricula, and face exorbitant college fees. Bunch & Barrax (1993) also maintain that course schedules are not developed to meet the needs of the student.

In conclusion, dual enrollment policies are fairly common with over two-thirds of the states having at least some general oversight. About half of these policies are mandatory and in other states students are not guaranteed dual enrollment opportunities. Furthermore, the Education Commission of the States (2001) is concerned that the influence that policy decisions have made on dual enrollment programs has not been greatly investigated. Therefore, it is difficult to determine what influence, if any, dual enrollment programs have made overall.

Schwalm (1991) identifies several factors by which dual enrollment programs can vary from state to state, including: (1) admission, (2) finance, (3) instructors, (4) location, (5) student mix, (6) course content, and (7) credits earned. Each factor is described below.

Admission and Student Eligibility

Admission requirements play a huge role in a student's decision to participate. Academically advanced students will pursue higher education opportunities regardless of any involvement in dual enrollment programs, but policies that are too stringent can create unwanted barriers for students who need a little encouragement to participate in higher education. In Ohio, guidance counselors address obstacles by working with college representatives to waive admission requirements for students who are capable of completing college-level work but do not meet the minimum requirements for admittance (Jordan, 2001). A willingness to exercise professional judgment is important because rigorous requirements can easily discourage less advanced students from taking dual enrollment courses.

It is not unusual for postsecondary institutions to set strict admission criteria to deny credits earned from dual enrollment programs, especially if the courses are taught by high school teachers. The idea is to ensure courses satisfy college-level standards and to alleviate any concerns from college officials. Some program policies stipulate high grade point averages and or high scores on standardized tests. In some instances incoming freshmen must also pass the college proficiency exam.

There are implications that dual enrollment courses are not college material that they are courses exaggerated to look good (Karp et al, 2004).

Consequently, critics argue for rigorous admission requirements to ensure college-level content. Stringent requirements further allow colleges to select top students, thereby closing the door to lower-achieving prospects admitted simply to increase headcount. This makes sense to some educators, but there are better ways to avail dual enrollment opportunities to prospective students and still maintain quality.

Admission restrictions are often imposed by controlling the grade level and by setting academic requirements for program admission. At least 17 states limit participation to high school juniors and seniors but some exceptions are made for highly qualified students in other levels. Some states such as Alabama, Arkansas, Ohio and South Dakota allow dual enrollment participation to students in their freshman and sophomore years. Maine, on the other hand, is concerned about maintaining a balance between high standards and open access, so the state allows high school students of any age to participate in dual enrollment. To participate, a) students must be recommended by their high school representative, b) hold a 3.0 grade point average, c) satisfy course prerequisites, and d) acquire parental consent. Students wishing to participate but unable to meet those requirements must be juniors or seniors in high school and must obtain permission from the high school and receiving college (McCarthy, 1999). State policies generally address the student's grade level or academic achievement in the admission criteria.

Students are often required to demonstrate college readiness, but there is a distinction between requiring students to demonstrate basic-level skills and permitting only advanced students to participate. The criteria for proficiency should reflect basic-level skills that enable more students to participate. Advanced requirements will inevitably prevent middle and low-achieving students from participating in dual enrollment.

As previously indicated, some states leave admission policies up to their institutions. With such leniency, however, inconsistencies from one institution to the next are varied. Institutions with more stringent policies create hardships for a lot of students causing them to seek institutions that are less cumbersome (Community College Week, 2000). Since high school officials are familiar with their students, it seems only natural that they should decide if their students are ready for dual enrollment. This strategy might prevent postsecondary institutions from gaining too much control over admission policies. Conversely, colleges cannot dictate the meaning of college-ready if setting admission standards is left up to the high school. Nevertheless, this dilemma can be easily resolved by engaging in collaborative discussions.

Michigan and Texas require dual enrollment students to pass the state high school exit exam before entering college courses. The notion is that high school students are ready for college-level work if they demonstrate proficiency in the

high school exit exam. This policy applies even to students with low grade point averages.

Some states require students to have high test scores or at least a B average. Still, others only admit students under the same conditions as regular college students. Because these standards are so much higher, they tend to exclude all but the most advanced or motivated students. Along with their high admission standards, postsecondary institutions enjoy institutional decision-making power. Moreover, dual enrollment courses must be college-level courses. Remedial or developmental courses are prohibited. Juniors and seniors are eligible to participate and may take up to two classes in one semester. However, they must meet minimum requirements in an approved college placement test or must show that they are exempt from taking the test. Exceptions can be made for some sophomores but not without special approval from the high school principal and college officials.

The state of Florida also has admission requirements for academic and technical programs. As an example, the minimum required grade point average for a high-school senior is 3.0 for academic courses and 2.0 for technical courses. Students must demonstrate technical ability to receive the same benefits as regular college students. The point is that students are encouraged to consider technical education in case they are not ready for academic courses. The main advantage is that more students are encouraged to participate in dual enrollment. There is also

less risk of losing students not prepared for college (Karp et al, 2004). Thus, Florida is seen as having one of the most successful dual enrollment programs in the country. Even though there are still some issues that need to be addressed, parents find the program attractive because it reduces educational expenses (Moore, 2005).

In Texas, juniors and seniors can participate in workforce classes if they meet the minimum sophomore and junior level TAKS test standards in English and Math and satisfy other course requirements. Texas institutions are not required to offer dual enrollment classes; they participate at their own discretion. They can also establish their own policies as long as those policies do not conflict with state requirements (Texas Higher Education Coordinating Board, Rules Applying to All Public Institutions., n.d.).

Some states want to know how educational institutions choose their students. Bailey, Hughes & Karp (2002) found that policies regarding student eligibility and or admission can be found at some institutions but not in others.

Finance

Funding structures have implications for schools as well as students. Meyer (2004) calls for further research to more clearly explain how dual enrollment programs are supported and to determine the effects that various funding streams have on student access and participation. The author suggests

that identifying funding sources acceptable to all stakeholders is challenging because school policies lack so much structure. There are concerns that students from low-income families will not participate and/or will fail if educational expenses are not supported.

State Dual Enrollment Policies: Addressing Access and Quality Report (Karp et al, 2004) suggests that states use funding to promote or discourage dual enrollment participation. For example, some states require students to pay their own tuition, which can ultimately create obstacles for particular students. Other states are willing to help their institutions financially, but funding is not necessarily sufficient to support everyone's goals. Needless to say, postsecondary institutions can easily shift priorities and lose sight of the fact that without funding, their students cannot participate.

Low income students benefit when financial support is provided. Sometimes the burden is placed on the high school or the college waives the tuition. Some institutions share direct program expenses such as tuition and fees and the cost of books, but students are often responsible for indirect costs such as supplies and/or transportation. In reality, however, some states believe that requiring students to pay all their expenses motivates them to take their courses more seriously. If students choose to leave the high school to attend college, the high school is not responsible for offsetting any costs.

The best scenario, according to noted scholars, is for states to fund program tuition. In this way, neither students nor educational institutions are required to pay. The disadvantage is that states can drop financial support under fiscal pressure and place the burden back on the schools or students, or possibly eliminate the program altogether.

ADA and FTE Funding

High schools in at least two states, Texas and Washington, lose their ADA funding when students participate in dual enrollment, according to *Update to State Dual Enrollment Policies: Addressing Access and Quality* (Karp, et al, 2005). In contrast, colleges are permitted to count students toward their FTE funding. To complicate matters, some states are not able to claim FTE funding until the student enrolls in their third dual enrollment course. Other states try to balance their funding between high schools and postsecondary institutions. Yet, in other states neither the high school nor the college loses ADA or FTE funding. When no institution loses funds, the state pays twice for the same student and institutions are accused of double dipping. Double dipping is controversial, according to *State Policy and Postsecondary Enrollment Options: Creating Seamless Systems* (Boswell, 2001), but has proved favorable in some states. Illinois established a double-dipping policy in 1996 and as a result successfully attracted more students to dual enrollment (Andrews, 2000).

On the downside, Mees & Schroeder (2001) predict that schools will not encourage students to participate if funds are lost when students enroll. Likewise, colleges that lose funding for enrolling high school students will not be so willing to offer the program.

It is evident that funding practices for dual enrollment programs vary from students bearing the brunt, to institutions receiving funds. To a certain extent, however, funding practices will encourage more students and educational institutions to participate in higher education.

Instructors

Policies regarding dual enrollment instructors also vary statewide. In some states instructional responsibilities fall on the college, while in others, the high school is responsible. In some states high school teachers may teach dual enrollment courses regardless of their credentials. Other states require secondary school teachers to have the same teaching credentials as college faculty. As well, Michigan and Missouri require secondary school teachers to participate in professional development activities.

Salt Lake Community College (SLCC) recognizes that faculty cooperation can determine the success or failure of their dual enrollment program. The college attributes the success of dual enrollment to the quality of instruction and faculty development. Outstanding faculty receives awards at the end of the year

for their commitment and dedication to students and to the program (Peterson, Anjewierden & Corser, 2001).

In some states the accrediting agency is responsible for setting the policy in regard to instructor selections. This usually means that instructors are required to meet the same requirements as college instructors. The process is based on accountability purposes lest anyone is ever challenged. For critics who claim that dual enrollment programs are incoherent and lack substance, this policy disproves their argument. One drawback is the burden of instruction on the college, which may not have the resources or the faculty willing to participate in dual enrollment programs (Hoffman, 2003).

Often, students who go through a dual enrollment program transfer to colleges or universities that refuse transfer courses taught by high school teachers (Catron, 2001). In other instances, secondary teachers without postsecondary teaching credentials are able to teach dual enrollment courses. This is an ideal solution for alleviating instructor and funding deficits at the postsecondary institution, especially if the particular institution does not receive FTE or tuition funding for dually enrolled students. This policy may work in some states, but may not work in others.

Careful consideration is given when selecting instructors for dual enrollment courses, whether they are high school instructors with (or without) post-secondary teaching credentials, or college faculty. Too many regulations can

create obstacles that discourage institutions from participating in dual enrollment programs, but the primary objective should be to ensure that appropriate resources are available to recruit the most qualified instructors. As other states have done, postsecondary institutions need to ensure program effectiveness by providing professional development opportunities for all hired faculty. Additionally, a strong but effective policy pertaining to instructors may enhance the quality of dual enrollment programs and also improve partnerships with other postsecondary institutions to accept dual enrollment courses as transfer credits.

In the publication, *Rules Applying to All Public Institutions of Higher Education in Texas, Chapter 4, Subchapter D*, (Texas Higher Education Coordinating Board, n.d.) the author specifies that Texas requires its postsecondary institutions to hire their own dual enrollment instructors, but they must first be selected from the college faculty pool. A second option is to select instructors from the high schools, but they must have the same credentials as college faculty. Colleges must conduct performance appraisals on anyone teaching a dual enrollment course, including high school teachers.

Location and Student Mix

State policies address dual enrollment courses and their benefits, as well as the location where these courses are taught. Only a handful of states require that dual enrollment programs be taught at postsecondary institutions, otherwise, it is

permissible to teach dual enrollment at either the secondary or postsecondary institution at most other states.

Most states exercise some flexibility in their policies and allow a combination of high school and college-level students in the same course. Only two states have actual mixing requirements. Rafn (2002) President of Northeast Wisconsin Technical College (NWTC), however, cautions that not all high school students are ready for the dual enrollment experience because some require more nurturing, and lack focus and maturity.

The location where dual enrollment is offered, and the process of combining students, can have a profound influence on the perceived quality of the dual enrollment program. Institutions that mandate where courses are taught, on college campuses, for example, can restrict participation considering that some students have transportation constraints (Lieb, 1999). Likewise, policies that regulate public access to secondary school sites might restrict regular college students from participating at the high school campus. As a result, institutions of higher education should ensure their guidelines reflect that dual enrollment courses are open to the public, and if offered at the high school will take place during public school hours (Chapman, 2001). Chapman further argues that offering dual enrollment courses at the college campus is beneficial; however, he cautions as does Lieb (1999), that it can also restrict access. This may be the reason why some states do not support one program model over another. It is

possibly safer to leave the decision up to participating institutions to decide what works best for them.

Texas regulations enable institutions to offer dual enrollment in different formats—high school, college or the web. Moreover, dual enrollment classes can include dual enrollment students only, or a combination of dual enrollment and regular college students. Sometimes regular high school students are mixed in with dual enrollment students. This situation is permissible only if (1) the high school needs the course and does not have the means to offer it, (2) the student is in the Advance Placement program, or (3) the student is earning articulated college credit.

Regardless of the class make-up, all dual enrollment courses and their method of delivery, materials used, and the evaluation process, must correspond with the college curriculum. Dual enrollment students are also bound by college policies and have the same rights and responsibilities as regular college students. Institutions are required to comply with all state policies.

Course Content

Some states prefer to regulate the instructional practices of their institutions. They decide which courses are offered or they regulate course content. Some limit the number of courses offered or dictate which to use. Other states have no restrictions and a few use combined approaches. Standardizing

instructional books, curricula, and exams can seem like the most efficient way to ensure quality of dual enrollment programs, but institutions do not use this method of regulation often. Institutions in at least three states require state approval of courses. Restrictions generally apply to courses such as physical education, developmental/guided studies or student success courses.

Regulations concerning instructors, location, and funding can have implications that limit course offerings. For example, the number of qualified dual enrollment instructors in high schools is reduced when established policies are too stringent. Higher education institutions will struggle to find instructors with specialized credentials, subsequently limiting the number of courses offered. Institutions may also lack the funds to compensate them financially.

Credits Earned

Only a few states describe how credit is earned. Legislation in those states dictates that students will earn dual credit via transcript. At least one state specifies that credit is granted based on the type of institution in which the credit is earned. In most cases credits earned are transferable to postsecondary institutions within their state. More specifically, students are bound by the rules of their transferring institution.

Burns and Lewis (2000) maintain that transfer issues can occur if the transferring institution is not involved in the dual enrollment agreement. Helfgot

(2001) also says that frustration develops when high school personnel perceive that their relationship with the postsecondary institution is not equal. Some high school officials maintain that college representatives visit them only at their own convenience and that they often fail to attend meetings to which they are invited. Officials further argue that college representatives are generally available when their enrollments are low, but when the college is doing well, collaboration with the high school is reduced. “High school staff at times perceives that high schools are important to colleges and universities only when their graduates are needed and can be ignored when there is no such need” (p. 44).

Program Evaluation

Bonesteel and Sperry (2002) propose that higher education institutions prove their dual enrollment programs are successful and of the highest quality. They believe that institutions should consistently monitor the performance of their high school instructors, students, and programs and further suggest that the responsibility for evaluation should lie with the college. Regular appraisals assess program claims, satisfy accountability concerns and provide direction for program improvement. Evaluation can be accomplished by site visits, research that tests the comparability of the off-campus and on-campus courses, and follow-up surveys of enrolled students. High school instructors should also be surveyed to

determine their satisfaction with the dual enrollment program and their perception of how well the program works.

Eleven states hold participating institutions accountable for their dual enrollment programs. Eight of them conduct program reviews and require institutions to report data on program effectiveness. Missouri is the only state required to submit evidence of program compliance but is not required to report the results of their data.

The American Association of State Colleges and Universities (2002) indicates that an effective dual enrollment program provides the courses that are not available in the high school. Armstrong (n.d.) provides another point of view. He contends that institutions should be able to gauge the success of their dual enrollment program by comparing the number of students who matriculate in college after dual enrollment.

Texas State Policies

Texas supports dual enrollment but leaves many of the decisions to the discretion of its institutions. Unlike other states, educational institutions in Texas are not required to offer dual enrollment, but they are required to offer dual enrollment if students request it. Schools may decide how payment of tuition and fees is handled but charging fees can incur hardships for many of the students. The state's involvement is more evident in eligibility policies. For example, it

dictates the minimum scores on the state's exit assessment, SAT or ACT exams. An admissions application is required and students are limited to two courses in the term.

Although Texas law does not decide where or how dual enrollment courses are offered it does stipulate an instructor's teaching credentials. Moreover, both secondary and postsecondary institutions receive funding for each student, but the secondary institution receives the average daily rate only if the student is enrolled in high school full-time.

Summary

Much consideration is given to making sure that Americans are ready for a more improved workforce. The focus now is for states and educational leaders to offer more college courses to students while still in high school. Dual enrollment is generally reserved for students in the top of the class, but educational leaders think that similar opportunities should be extended to every student. However, little information is available to educational institutions to help improve their programs and to ensure that more students participate in dual enrollment.

Several issues pertaining to dual enrollment are being addressed but much more needs to be done to ensure that all students have the same opportunity to participate. Hoffman (2005), an advocate of dual enrollment for underrepresented youth, recommends dual enrollment for attracting disadvantaged students because

it reduces educational expenses for parents and lessens the time to get a degree.

The author challenges institutions, especially those with open door policies, to amend their policies and mission statements to serve a broader range of students.

In the past, secondary and postsecondary institutions have done a poor job of establishing initiatives to enhance the student's high school experience. More recently, however, policymakers and educators are building bridges to promote student success. Through dual enrollment programs, secondary and postsecondary institutions are streamlining the senior year for students by easing the transition from high school to college and by reducing the amount of time students take to earn a degree. Through dual enrollment students can earn college-level credits while in high school and gain marketable skills. However, student participation is contingent on the decision-makers and their desire to collaborate to make dual enrollment programs work (Andrews, 2004).

Hoffman (2005) also argues that sufficient information pertaining to dual enrollment is not available. There is no data available signifying the number of students who actually participate in dual enrollment programs. Moreover, it is unknown whether dual enrollment students fare better academically than their non-dual enrollment counterparts. The author of *Add and Subtract: Dual Enrollment as a State Strategy to Increase Postsecondary Success for Underrepresented Students* (Hoffman, 2005), suggests that states should cease

further spending on dual enrollment initiatives until more evidence is presented to determine advantages/disadvantages of the program.

Much is known about the dual enrollment bureaucracy, but we know very little about its impact on students. Thus, connections between dual enrollment policies, secondary reform, and postsecondary education, leave much to be desired. Dual enrollment must be a collaborative effort between secondary and postsecondary schools. It is their responsibility to ensure that their students transition successfully from high school to college.

CHAPTER THREE

METHODOLOGY

The methodology section of a research study has three major functions (Rossman and Rallis, 2003). First, it is a plan to conduct the study. Second, it shows that one is capable of conducting the study. Third, the methodology maintains the “design flexibility that is a hallmark of qualitative methods” (p.84).

Research Design

Lewis (2003) judges a qualitative research study design by a well-defined purpose that frames the research questions and elicits valid and reliable data. The author highlights five key aspects for a good qualitative research design study: (1) how the research questions are developed, (2) the research site and sample, (3) data collection, (4) procedures; and (5) research relationships, including matters of access and ethics.

Research Questions

Lewis also provides specific standards for developing research questions: (1) they should be clear and well-written, (2) they should be short and to the point, (3) they must be able to be researched, (4) they must be able to fill a gap in knowledge, and (5) they should be of some interest to the researcher. Following are research questions used in the study:

1. How do students from Sam Houston High School perceive dual enrollment?
2. How are students from Sam Houston High School encouraged to participate in dual enrollment?
3. What barriers prevent students enrolled at Sam Houston High School from participating in dual enrollment?
4. How do HCC-NE and Sam Houston High School collaborate to attract Hispanic students to the dual enrollment program?

Research Setting and Population

It was important to choose the research setting and populations that in conjunction with the research questions could provide inclusive and valuable information. Although the research questions were important, the existing literature and understanding of the research helped influence the researcher's decisions about the research site and selected sample.

Research Timeframe

In designing the study the researcher considered a feasible timeframe for conducting the research, its relevance to the study and also how the data were to be collected. The process enabled the researcher to better understand the research objectives and their purpose, and provided a general idea of the data collection requirements.

Data Collection

Decisions about data collection primarily stemmed from the research questions, but the composition and timing of the study also had an impact in the methods used. Lewis (2003) introduced observation, documentary analysis, conversation analysis and discourse analysis as methods for naturally occurring data, and in-depth interviews and focus group discussions for generated data. The primary methods used for the particular study were focus group and in-depth interviews because they correlated best with the research topic.

Focus group and in-depth interviews enabled study participants to better describe their relationship to the research study. They allowed individuals to express themselves fully and voluntarily. Focus group interviews also encouraged interactions among participants and were invaluable for meeting the goals of the research study. Participants had no problems articulating their thoughts and easily provided input or creative feedback. On the other hand, the researcher used in-depth interviews to obtain specific information and to gain personal perspectives.

Research Relationships

Gaining access to the research environment was a critical issue for the researcher. Access was accomplished by (1) being sensitive to the organization and decision-makers, (2) providing a clear purpose of the study and the reason the particular setting was chosen, (3) providing truthful information such as the

timeframe of the study, the number of interviews needed and the sample selection process, (4) explaining how the findings would be used, and (5) conditions for anonymity and confidentiality. The researcher identified points of contact within the two organizations and readily responded to any concerns or issues raised. Above all, the researcher was flexible and adaptable in her approach and respected all participants.

Informed Consent

Informed consent was obtained from the Houston Independent School district, the High School principal and each participant. Parental consent was also obtained for all students in the study. Information about the study including the purpose of the study and how the data was to be used was carefully explained. Participants were informed that their role in the study was strictly voluntary and that no one would be penalized if they declined to take part in the study. Interviews were conducted during business or school hours based on institutional approval.

Anonymity and Confidentiality

The identity of study participants was not divulged outside the research study. However, in some cases a third party was involved in the participation approval process, in which case the researcher could not guarantee complete anonymity. Participants were informed if this situation occurred. Similarly,

attribution to direct or indirect comments was avoided at all times. Equally important, the researcher was careful not to compromise anonymity through data storage, including tapes and transcripts. Any identifying information was stored separate from data and was erased and or destroyed upon completion of the study.

Protecting Participants from Harm

One always considered potential detriment to participants, and as previously noted, ensured that everyone understood their role in the study. Sensitive issues were avoided and the researcher was always mindful of uncomfortable signs of non-verbal body language. There was no situation where the interview needed to be stopped.

The Interview Guide

Legard, Keegan, and Ward (2003) say that researchers usually know the themes they want to investigate. They use topic guides, interview schedules or outlines listing important topics to be covered during the interview. The organization of information was flexible enough to accommodate interviewees and to enable clarification of responses. The structured protocol was useful when responding to questions from participants.

Scholars also argue that interviews are interactive, that data are usually produced from interactions taking place between the researcher and interviewee. Questions were asked in a manner that encouraged participants to open up when

responding to questions. Probing and other strategies were used to delve into the discussion or gain a better understanding of responses.

As participants were guided through the thought process, the researcher observed that interviews and research questions created new knowledge. Participants were encouraged to provide input on particular topics or to propose solutions for issues raised during the interview.

Question Formulation

Good in-depth interviewing resulted from open-ended questions as well. Open-ended questions appeared to be easy, but they were much more difficult to apply in practice. Through content mapping and content mining, questions ranged from broad to narrow. Closed questions were used to keep interviewees on track and to bring closure to the interview process. They were also helpful for obtaining the specificity the researcher needed.

Asking the Questions

In-depth interviews obtained both general and specific information on the same topic. Content mapping questions raised specific issues, while content mining questions involved probes to explore the issues in more detail. The researcher combined the two types of questions and used them throughout the interview process.

Scheduling Appointments

Interviews generally vary in length depending on the particular study and its participants. Legard et al (2003) inform us to allow interviews to proceed for the length of time participants need; however, they suggest that one hour is typically what an interview requires. More than one hour is excessive and can lead to mental exhaustion for participants and the researcher. For this study, interviews did not exceed one per day and were limited to one hour each. Allowances were made for early arrivals and late departures and for questions and answers.

Interview Location

The interview location for student participants was chosen by the High School administrative assistant. Faculty members, however, chose to meet in their respective classroom or office. Furthermore, the researcher ensured that appropriate accommodations were available as needed and that their needs for comfort, quietness, privacy and space were met.

Recording

Interviews were audio recorded and some notes were taken. Audio recordings allowed the researcher to focus on the interviewees and made probing easier. Non-verbal body language and other observational behavior that could not be captured electronically were manually recorded. Nevertheless, audio

recordings were more effective than notes because they captured every word, language used and tone of voice. The researcher ensured that appropriate electronic equipment was available prior to the interviews.

Selecting Samples

Ritchie, Lewis and Elam (2003) explain how non-probability samples are used for selecting the population for study. They describe them as samples by design. The authors suggest that non-probability samples are ideal for small in-depth studies.

They also discuss other sampling approaches called criterion based or purposive, where participants are selected based on distinct characteristics that help researchers further explore and better understand the themes of the study. Purposive sampling guarantees that all elements critical to the topic are addressed and also ensures that diversity is included so that the impact of the characteristic can be explored. Criteria decisions are usually made early in the research based on the purpose of the study, what is known about the study, and assumptions or gaps in knowledge about the study population.

Sample Size

Qualitative samples are generally small, according to Ritchie et al (2003). They postulate that increasing the sample size does not necessarily lead to a better study that it is highly unlikely that new evidence will be obtained by increasing

the size of the sample. The authors recommend small sample sizes because of the intense nature of qualitative studies. Moreover, oversized interviews are challenging unless the researcher has years to spend on the study. The following were considered in determining the size of the sample: (1) small homogeneous groups satisfy diversity issues, (2) larger criteria require a larger sample size, (3) multiple samples within one study are needed for comparative purposes, and (4) methods of data collection dictate the size of the sample.

Sample Frames

Moreover, the authors introduce two types of sample frames that are used in research studies: existing lists or information sources and constructed frames. The researcher used existing lists and information sources because they were the most convenient and were easy to obtain.

Data Analysis

Analyzing qualitative data takes times. To some, the process is boring but others find it quite challenging. Rossman & Rallis, (2003), however, argue that the data analysis process brings meaning to the data and presents it in a manner that can be understood by the reader. How one decides to analyze her data is based on the study type.

Data were primarily collected from interviews and audio recordings that were transcribed. Merriam (2001) posits that “The right way to analyze data in a

qualitative study is to do it simultaneously with the data collection” (p. 162).

Furthermore, creating categories helped focus the data analysis. The author offers the following guidelines for developing useful categories: (1) categories should reflect the purpose of the research, (2) categories should be exhaustive, (3) categories should be mutually cohesive, (4) categories should be sensitive, and (5) categories should be conceptually congruent (p.77).

Miles and Huberman (1994) say that data collection and managing the data is what makes up analysis. The authors introduce coding, which helped differentiate and combine the data so one could reflect and make sense of the descriptive information gathered during the study. The researcher attached labels to statements and organized the results in a systematic manner. Coding helped streamline the amount of information so the researcher could find the answers to the research questions which led to conclusions and recommendations.

Validity and Reliability

Due to its applied nature, a qualitative study must contain procedures to assure valid, reliable results. The investigation must be credible and rigorous. According to Merriam (2001), “Validity and reliability are concerns that can be approached through careful attention to a study’s conceptualization and the way in which the data were collected, analyzed, and interpreted and the way in which the findings are presented” (p. 200).

Internal validity (Denzin and Lincoln, 1994) is the degree to which findings represent the phenomenon in question and determines how findings match reality. The following strategies enhanced internal validity: (1) Triangulation. The researcher used multiple sources of data to confirm the findings of the study (Patton, 1990), (2) Member checks. The researcher asked individuals to review the material collected (Janesick et al, 1994). Individuals received printed sections of the study and were asked to provide feedback and assurance that quotes and information provided were accurate, (3) Peer review. The researcher asked colleagues to review the findings, (4) Validity. The researcher ensured that the research was conducted in a way that enhanced the study's internal validity.

External validity is the degree to which findings can be generalized to settings similar to the one in which the study occurs (Denzin and Lincoln, 1994). Generalizing qualitative studies can be problematic. The goal of the researcher was to obtain an in-depth understanding of a phenomenon, individual, or situation. For validity purposes, the study used a reasonably small sample size. Ritchie, Lewis, and Elam (2003) declared that, "Qualitative research is highly intensive in terms of the research resources it requires" (p. 83). Large sized interviews were not recommended because they are difficult to manage and if done properly could take years to complete.

Validity is an important factor in any type of research. The research design incorporated mechanisms and strategies to alleviate threats to the study's validity. Eisenhart and Howe (1992) proposed several ideas about validity and suggested that one should: (1) develop an appropriate fit between research questions, data collection procedures and analysis techniques, (2) implement effective application of data collection and analysis techniques, (3) have a thorough understanding and knowledge in what is being investigated, (4) develop a study that will provide value to understanding the phenomenon under investigation, and (5) create a comprehensive and ethical research design (p. 35).

Furthermore, Babhie (1995) describes reliability as “a matter of whether a particular technique applied repeatedly to the same object would yield the same results each time” (p. 124).

Study Proposal Overview

The study used qualitative methodology to explore the factors influencing Hispanic students' participation in a dual enrollment program. It built upon specific research questions, a comprehensive review of the literature, focus group discussions and in-depth interviews, data collection and data analysis.

Site selection was guided by a local community college that functions as service provider for a specific high school within the Houston Independent School District, and a set of criteria that defines it, including: enrollment size; percent of

Hispanic students in the high school, a number of college-bound Hispanic juniors and seniors who were participating or not participating in the College's dual enrollment program, and geographic location of the High School in relation to the College. The study investigated the dual enrollment partnership between Sam Houston High School, which is located on the northeast region of Houston, and Houston Community College-Northeast.

Participants were college-bound high school juniors and seniors of Hispanic origin, two high school teachers and one counselor, and one college faculty member. All faculty members possessed at least one year experience working with the dual enrollment program. Focus group discussions and in-depth individual interviews were conducted. The term of focus was fall 2006.

Procedures

Entry into Sam Houston High School was gained through the Houston Independent School District and the principal of Sam Houston High School. Once entry was reached, the researcher worked directly with a High School designated official.

The researcher first obtained written permission to conduct the study from the Houston Independent School District and then from the principal of the High School. After permission was granted, a meeting was held with the dean of instruction and an associate to introduce the study, discuss the sample population,

and arrange a date and time to meet participants. Permission was also obtained from the College president to interview one College faculty member.

To achieve a rich description of the phenomena under study, the researcher selected research participants who could provide first-hand descriptions of the factors that influenced student's participation in the dual enrollment program.

The researcher used criterion and homogeneous case sampling for purposefully selecting the population, then requested to interview 10 college-bound juniors and 10 seniors participating in dual enrollment, and 10 college-bound juniors and 10 seniors not participating in dual enrollment. Students were selected according to predetermined criteria listed in the below chart.

Focus Group Selection Criteria

College-Bound Juniors Participating in Dual Enrollment	College-Bound Juniors Not Participating in Dual Enrollment
10 juniors from Sam Houston High School participating in dual enrollment at HCC-NE in the Fall 2006 term.	10 juniors from Sam Houston High School not participating in dual enrollment at HCC-NE in the Fall 2006 term.
College-Bound Seniors Participating in Dual Enrollment	College-Bound Seniors Not Participating in Dual Enrollment
10 seniors from Sam Houston High School participating in dual enrollment Fall 2006	10 seniors from Sam Houston High School not participating in dual enrollment in the Fall 2006

The researcher selected the interview guide approach to conduct the discussions. Using this method the researcher was able to select a general list of topics to be covered. Additionally, to provide the framework for the discussions

the researcher developed a list of open-ended and closed questions that helped answer the primary research questions. Flexibility, situational sensitivity and open-ended responses were the features defining the interviews. Conversations were conducted as focus group discussions and in-depth, individual interviews. Two separate focus groups were conducted. The first focus group included juniors and seniors participating in dual enrollment. The second focus group included juniors and seniors not participating in dual enrollment. Additionally, student in-depth interviews were conducted in pairs, which included juniors and seniors dually enrolled and not dually enrolled from the previous focus groups. Moreover, the researcher conducted in-depth interviews with one High School counselor, two High School teachers and a College faculty member.

The researcher conducted only one focus group interview per day. In-depth interviews were also conducted on separate days.

Study participants received a full explanation of the study. They were told that there was no right or wrong answer and that all responses were based on personal experience and or opinion. They were also informed participation in the study was strictly voluntary and if they chose not to participate they would not be penalized in any way.

Participants received a letter of consent before interviews begin (see Exhibit A), and parental consent was obtained for students. The researcher's introductory remarks can be found in Appendix B of this document.

Group discussions and interviews took place at the discretion of study participants. Every effort was made to avoid disruption of class activities, especially during exam week. Interviews were conducted between September and November 2006 to give students a chance to participate or not participate in dual enrollment in the fall 2006 term.

Data Collection

Structured interview protocols served as the primary data collection method. Participants were asked a series of at least 10 questions. Most questions were open ended to enable the researcher to hold conversations with participants in a practical and legitimate way. Interviews were structured where specific questions and the order in which they were asked were predetermined.

Communications were audio recorded and later transcribed for analysis. Recorded impressions and any data collected were maintained in a fireproof safe in the researcher's home until completion of the study.

Data Analysis

Data analysis focused on the reasons why students participated or chose not to participate in dual enrollment at HCC-NE. The researcher reviewed and analyzed data as they were collected to ensure the study's progress and focus was maintained on the research questions. A grid to systematize participants' responses and identify themes to note differences and similarities in responses

was used. Key findings were drawn from the coded data to respond to the research questions and four procedures were implemented: (1) categorical aggregation; (2) direct interpretation; (3) established history, and (4) descriptively presented findings. The themes that emerge were refined throughout the data collection and data analysis process. The researcher developed generalizations in terms of patterns and how they compared and contrasted with the literature review.

To enhance the validity of the findings, the researcher conducted interviews until data saturation occurred. Furthermore, the researcher provided a detailed description of how the study was conducted, the measures taken to ensure the accuracy of the observation, and the evidence on which the findings were grounded.

CHAPTER FOUR

FINDINGS

Research Goals

The purpose of the study was to gain an understanding of the motivations and obstacles that influenced dual enrollment participation among college-bound students from Sam Houston High School (SHHS).

Four research questions framed the study:

1. How do students from Sam Houston High School perceive dual enrollment?
2. How are students from Sam Houston High School encouraged to participate in dual enrollment?
3. What barriers prevent students enrolled at Sam Houston High School from participating in dual enrollment?
4. How do Houston Community College-Northeast and Sam Houston High School collaborate to attract Hispanic students to the dual enrollment program?

Overview of the Study

Study Sample Description

The study targeted 40 high school juniors and seniors who were college bound, both participating and not participating in dual enrollment. Students were

classified as dual enrollment participants if enrolled at HCC-NE and SHHS, and non-dual enrollment participants if not dually enrolled. Ten junior and 10 senior dually enrolled students were selected from college algebra, automotive, cosmetology, and drafting classes, as were 10 junior and 10 senior non-dually enrolled students. Students were identified as college-bound if they had applied for admission to the College through the dual enrollment program. Additionally, three faculty members from SHHS and one from HCC-NE participated in the study. Each of these members had worked with the program at least one year. The purposeful sampling technique resulted in focus group and in-depth interviews.

SHHS was selected because of the size of its student body, high Hispanic enrollment, and low dual enrollment participation rate. The study sample provided a reasonable expectation that participants would possess sufficient knowledge about dual enrollment, resulting in meaningful data.

Procedures

The researcher contacted the principal of SHHS and the president of HCC-NE, who expressed interest in the study, willingly committed time and resources, and/or provided leads on potential interview participants. Furthermore, the High School provided the database from which study participants were selected. An administrative assistant from the High School arranged the date, time, and

location for interviews with students. The researcher scheduled appointments with faculty members of both institutions who would also participate in the study.

The month before the study began, the researcher met with the High School's dean of instruction at which time consent letters containing information about the study were provided. The letters were developed in English and Spanish and asked parents to contact the researcher if they had any questions about the study.

In-depth and focus group interviews were chosen because they provided the best way to obtain answers to the research questions. The interviews provided a wealth of information which could not have been obtained otherwise. In the essence of time, the researcher combined junior and senior dual enrollment participants in one group and junior and senior non-dual enrollment participants in another. Hence, the interview process began with two focus group interviews conducted separately. The first focus group comprised 20 college-bound students participating in dual enrollment. Twelve non-dually enrolled college-bound students participated in Focus Group Two. Eight of the 20 selected non-dually enrolled students did not attend the interview but were given a second chance to participate in the study. None showed up the second time. Group participants reported that those students did not want to miss homework assignments and class notes and therefore, chose not to take part in the study.

Two juniors and two seniors from Focus Group One, and two juniors and two seniors from Focus Group Two were paired off for a total of four personal interviews. These interviews were conducted for member checking the researcher's perceptions from the focus group discussions. Individual interviews were conducted with High School and College faculty participants. The senior level counselor was initially selected for the study but declined to participate. As a replacement, another counselor with a dual enrollment background was recommended and agreed to participate.

Focus group interviews with students were conducted in the High School auditorium and in-depth interviews were in the library. In-depth interviews with faculty were conducted in their classroom or personal office. The researcher provided participants with details of the study and requested to audio record their interviews, which lasted approximately one hour. Interviews were transcribed and a content analysis was conducted to determine differences and similarities among participant responses.

Interview Questions

Focus Group One received a set of 10 questions and Focus Group Two received a different set of 10 questions; in-depth interviewees received the same questions. The interview guides included questions related to students' perceptions of dual enrollment, challenges and influences. Similarly, the High

School faculty received one set of questions and the College participant a different set.

Data Collection and Analysis

The research was conducted during September through December 2006. Over the course of the research period, time was spent at the High School and the College becoming familiar with operations and conducting interviews. Forty student participants and four faculty members provided the data for analysis, which sometimes led the researcher to other sources of information for purposes of validation.

A number of themes emerged as told through the stories from the interview transcripts: (1) dual enrollment is an opportunity; it saves time and money, and provides a head start on college, 2) family is a source of encouragement; teachers motivate, (3) perceived academic un-preparedness, (4) college course placement policies are unclear, (5) High School teachers lack the credentials to teach dual enrollment, (6) the test schedule is inconvenient (7) transferability of credits is not clear, (8) lack of information, and (9) lack of administrative support. The themes helped answer the research questions and are addressed in greater depth.

Throughout the study are quotations that illustrate participants' points of view. The researcher edited quotations omitting "ums," "ahs," and the overuse of

the word “like.” Two words were replaced: “gonna,” became “going to,” and “cause,” is “because.” Stories told illustrate many of the issues impacting student participation in the HCC-NE dual enrollment program. The true names of participants were not used.

Descriptive Findings of the Study

In order to understand the culture of Sam Houston High School, it is important to outline characteristics of the educational community.

A Profile of the Houston Independent School District (HISD)

HISD, the nation’s seventh largest public school system and the largest in Texas, has more than 210,000 students. Its schools are situated throughout Houston. Schools are organized by feeder patterns of elementary school, middle school, high school, alternative and charter schools. Regional managers are assigned to strengthen connections with parents and form partnerships within the community.

Approximately 60 percent of the district’s students are of Hispanic origin. Thirty percent are African American, 8.3 percent White, 3.1 percent Asian, and less than one percent is Native American. Twenty-three percent of the students are enrolled in grades 9-12, 66.1 percent are labeled at-risk, and 78.0 percent are economically disadvantaged. The district operates under the auspices of the Texas Education Agency and uses a core curriculum based on guidelines for pre-

kindergarten through grade twelve. Also offered are programs in early childhood education, special education, multilingual education, career and technology/vocational education, and dual credit/advanced academics (HISD Connect: Facts and Figures, 2006-2007).

A Profile of Sam Houston High School (SHHS)

SHHS is one of the oldest public high schools in Texas. The school was founded in 1878 a few years after the Allen brothers scouted the shores of Buffalo Bayou. The name of the school was not always Sam Houston High School. Since the founding in 1878, it has undergone several name changes: (1) Houston Academy, 1878-1881; (2) Clopper Institute, 1881-1886; (3) Houston Normal School, 1886-1895; (4) Houston High School, 1895-1926; (5) Central High School, 1926-1955; and (6) Sam Houston High School, 1955-Present.

The High School has one of the most diverse course selections in HISD. Over one hundred separate courses are offered, including SAT, Advanced Placement, CATE, Special Education and English as a Second Language.

During the 2005-2006 academic year, student enrollment was 2,678, race/ethnicity was 91 percent Hispanic, 82 percent were at -risk, and 89 percent of the students were on free and/or reduced lunch. The Texas Education Agency rated Sam Houston High School *Academically Unacceptable* for 2003-2004,

2004-2005, and 2005-2006 (Houston Independent School District Profiles 2005-2006).

A Profile of Houston Community College (HCC)

Since its inception in 1971, more than 1.3 million students have attended HCC. The two-year, public community college offers associate degrees and certificates that transfer to four-year postsecondary institutions. Continuing education, corporate training, lifelong learning and enrichment programs add to its curriculum. HCC boasts the largest adult and literacy programs in Texas. The College's transformational leadership is steadfast on promoting the institution toward student success.

The Texas Higher Education Coordinating Board (THECB) awarded HCC high honors for its quality programs. In particular, 26 of its workforce programs received an exemplary rating. Moreover, dual enrollment programs at HCC are growing. In 2006, the College graduated its first Early College High School (ECHS) program. A new ECHS program is being developed at another HCC location. End of term unduplicated enrollment headcount for fall 2006 was 57,177 (Houston Community College System Fact Book, 2005-2006).

HCC Service Area Demographics

Total Population	2,063,673
Average Household Income	\$61,951
Median Household Income	\$42,702
Gender:	
Male	50.1%
Female	49.9%
Ethnicity	
African American	12.6%
Hispanic	40.7%
Asian/Pacific	3.7%
White	37.5%

Source: HCCS Fact Book, 2005-2006

A Profile of Houston Community College-Northeast (HCC-NE)

HCC-NE is one of six comprehensive community colleges within the HCC system. It offers a range of educational programs and services from basic education, dual credit, academic transfer, high-tech workforce training, continuing education, and customized contract training. The college is the third largest with four instructional centers located in the northeast sector of Houston.

Unduplicated end of term headcount enrollment for fall 2006 was 12,186

(Houston Community College System Fact Book, 2005-2006).

The College incorporates the vision of the HCC system:

(1) To be the educational institution of choice for those who seek skilled training for the workforce, those who seek to upgrade their skills to enhance preparedness for economic opportunity,

and those who seek lifelong learning opportunities to enhance their quality of life;

(2) To be an integral part of the economic and educational life of the community through quality partnerships and responsiveness to community needs;

(3) To be an institution that is known for its quality and competency and for its commitment to an open environment that fosters trust and confidence;

(4) To be an institution that provides facilities that are conducive for learning and working; and

(5) To be an effective and efficient resource management organization (Forde, n.d., p. 1)

HCC-NE Feeder Schools 2005-2006

Name of High School	H.S. Enroll Spring 2006	Black	Hispanic	White	Asian	Female	Male
<i>Barbara Jordon</i>	1175	57%	42%	1%	<1%	62%	38%
<i>Booker T. Washington</i>	1155	80%	17%	2%	<1%	46%	54%
<i>Forest Brook</i>	1170	92%	8%	n/a	n/a	48%	52%
<i>Furr</i>	1025	23%	74%	3%	1%	48%	52%
<i>Jeff Davis</i>	1580	12%	86%	2%	<1%	50%	50%
<i>Kashmere</i>	668	88%	12%	<1%	0%	47%	53%
<i>Reagan</i>	1720	7%	88%	4%	1%	47%	53%
<i>Sam Houston</i>	2678	6%	91%	3%	<1%	48%	52%
<i>Scarborough</i>	948	30%	56%	13%	1%	49%	51%
<i>Smiley</i>	1402	75%	24%	<1%	<1%	n/a	n/a
<i>Waltrip</i>	1849	18%	62%	19%	1%	49%	51%
<i>Wheatley</i>	902	58%	41%	<1%	1%	46%	54%

Source: Retrieved from http://www.publicschoolreview.com/agency_schools/stateid/TX/county/48201/agency/Houston_Isd; January 30, 2007

Comparative Enrollment for HCC-Northeast College
Fall 2005 and Fall 2006

Dual Credit Only

<i>Name of High School</i>	<i>Fall 2005</i>	<i>Fall 2006</i>
<i>Austin</i>	<i>12</i>	<i>0</i>
<i>Barbara Jordan</i>	<i>31</i>	<i>114</i>
<i>Forest Brook</i>	<i>30</i>	<i>48</i>
<i>Furr</i>	<i>0</i>	<i>66</i>
<i>Jeff Davis</i>	<i>49</i>	<i>86</i>
<i>Kashmere</i>	<i>7</i>	<i>30</i>
<i>Law Enforcement</i>	<i>25</i>	<i>26</i>
<i>Middle College Tech</i>	<i>18</i>	<i>15</i>
<i>Milby</i>	<i>26</i>	<i>17</i>
<i>Phyllis Wheatley</i>	<i>8</i>	<i>56</i>
<i>Sam Houston</i>	<i>55</i>	<i>46</i>
<i>Scarborough</i>	<i>40</i>	<i>53</i>
<i>Smiley</i>	<i>27</i>	<i>91</i>
<i>Yates</i>	<i>8</i>	<i>8</i>
<i>Total</i>	<i>336</i>	<i>656</i>

Source: HCC Comparative Enrollment Report, fall 2006: Enrollment by Career Type within Location

Data analysis focused on four research questions:

1. How do students from Sam Houston High School perceive dual enrollment?
2. How are students from Sam Houston High School encouraged to participate in dual enrollment?
3. What barriers prevent students enrolled at Sam Houston High School from participating in dual enrollment?

4. How do Houston Community College-Northeast and Sam Houston High School collaborate to attract Hispanic students to the dual enrollment program?

Research Question Number One:

How do students from Sam Houston School perceive dual enrollment?

Study participants were asked to describe their impression of the dual enrollment program. First and foremost, students perceived dual enrollment as: (1) a head start on college, (2) a way to achieve their goals, (3) a door to success, (4) an opportunity to improve their lives, and (5) a way to save time and money.

Whether participating in dual enrollment or not, all students said they planned to attend college and that dual enrollment provided a means to get there. Students in each of the focus groups, as well as students interviewed separately, viewed dual enrollment as an opportunity and as an investment for the future. Non-dually enrolled students recognized the value of dual enrollment and stated that no one should cease the opportunity to participate. The general consensus among all study participants was that dual enrollment saved time and money. The College defrayed the cost of tuition and fees and the high school provided the textbooks. Following are the responses:

Focus Group One: Dual Enrollment Participants

I think dual credit is a good opportunity to do some classes before getting to college and save some money and time. (Personal communication, October 2006)

I took it because I want to save time in college and why start from zero when I can already have something. That way I can finish, or earn my degree faster. (Personal communication, October 2006)

I decided to take dual credit because it saves us money and it was free. We didn't have to pay anything. So, I was thinking... I am going to college after high school. Having that will save me money and then I won't have to take the class again. I would have taken dual credit even if it wasn't free. (Personal communication, October 2006)

Focus Group Two: Dual Enrollment Non-Participants

It's a faster way to achieve your goals. It's like killing two birds with one stone. You're saving money at the same time you're getting dual credit. It means I'd be one step further into college. I wouldn't have to start in the beginning. I would already be in the entry level. (Personal communication, October 2006)

In-Depth Interview: Students

I thought it was a good idea to join, to get a chance for college after I graduate. It's like a door of success. If you open it now, things will be easier in the future. I know a lot of seniors that have dual credit but it's their last year and then they're going to college.

I have next year to take more classes. (Personal communication, October 2006)

I feel that students who take dual credit are lucky. They should take advantage of it because they have been given an opportunity so early in life to get ahead. And that's a chance that shouldn't pass them by. (Personal communication, October 2006)

In-depth Interview: Faculty

HCC pays their tuition and we're just using our regular books and often we just run stuff off. The books we have are so old and antiquated. We've been running material every day and they wouldn't use the book anyway. It would just be one more thing to carry around. (Personal communication, November 2006)

Research Question Number Two:

How are students from Sam Houston High School encouraged to participate in dual enrollment?

Students were asked who or what influenced them to participate or not participate in dual enrollment. Parents were cited more often as a major source of influence. On the contrary, some students and faculty members indicated a lack of parental support. Siblings, extended family and at least one teacher were also sources of encouragement. Personal experiences including family struggles and

financial hardships, and a lack of parental education encouraged non-dually enrolled students to participate or have a desire to participate in dual enrollment.

Focus Group One students said their parents were a positive influence in their decision to participate in dual enrollment. Other students in the same group expressed mixed feelings about parental influence. They said that encouragement from parents was lacking in some situations because those parents did not take part in events where information was provided. All students believed that parents would be more supportive of their children's decisions to participate in dual enrollment if they had appropriate information. In the meantime, the course of action should be for students to self-direct and take responsibility for their own decisions.

Students in Focus Group Two also said their parents and/or family were the primary source of encouragement. Although these students were not participating in dual enrollment, they clearly identified dual enrollment with going to college. Non-dually enrolled students were encouraged to pursue a postsecondary education by observation. Watching their family's struggle financially to make ends meet encouraged them to be better. More of these students said their parents did not attend college and they wanted to be the first in the family to succeed and make a better life for themselves.

A sibling relationship emerged when their brother or sister had attended college. Students often said a sibling encouraged them to participate in dual

enrollment based on their own educational experience. They also discussed the impact of extended family members' college attendance on their educational decisions. If an extended family member had attended college, non-dually enrolled students were more likely to report a reason to participate in dual enrollment.

Like dually enrolled students, non dual enrollment participants accepted responsibility for self improvement.

Focus Group One: Dual Enrollment Participants

The responsibility for going to college is on us. We have the last choice. If we want to do it, we can. But like I said, some students don't decide to go to college because they use their time to do other things like play sports or something else like going out with their girlfriends. They don't see that it's important to go to college right now, but they'll regret it later. I know. My parents tell me the same thing, over and over; they didn't have a chance to go to our schools. They went to sixth grade and had to work; my parents are from Mexico. They've worked hard and so they tell me all the time—it's better to go to college. You will work less, you will earn more money and you will not have to work as hard. That's what they tell me from time to time. (Personal communication, October 2006)

It's upon us because teachers and parents can only do so much. Our parents can't make us do what we don't want. They can only push us to some extent. Teachers go to PTSA meetings but they

get discouraged because the parents and the students don't go enough. At first, a lot of teachers would go, 10, 15 tops; it's not a big group. At one time there were more teachers because teachers volunteer pretty much whenever they can, but it's just the parents and the students. There are flyers and meetings and it comes on the PA system. It's just the fact that parents either can't go or they don't know. (Personal communication, October 2006)

Parents are not involved as much in their child's education. I think they're part to blame. . . . We have to apply for that college; no one's going to do it for us. We have to do it for ourselves. We have to be independent in society. We can't rely on anyone. So we're alone. If we don't receive support from anyone, we should do it for ourselves. (Personal communication, October 2006)

I believe that parents don't know what's going on with the dual credit program because we have a very low percentage of parents attending the meetings. We have the PTO which matches the parents, teachers and students. Last month, HCC let parents know that we had dual credit and all these other benefits, but parents didn't go to the meeting. This is a 3,000 student body school and just 20 parents went. The parents don't know it's offered, so they don't know what we're talking about. But when we tell them about it they go, 'Oh yes, it's a good thing you took the test. I hope you pass it.' They encourage us, but it's already too late. The fact is that most of the parents aren't aware of this program. (Personal communication, November 2006)

Focus Group Two: Non Dual Enrollment Participants

My family encourages me everyday or every opportunity they can. It's important because you being the first one to graduate from high school and college . . . that's going to set an example for my nephews and nieces that I did it—you can do it, too. From there I will increase the number of people attending college, meaning more success in life for them. (Personal communication, October 2006)

Basically, my sister, brother, and my parents influence me. My parents didn't finish high school and my sister and brother didn't go to college. I will be the first in the family to go to college and graduate. I see how they sometimes struggle and sometimes the money doesn't cover all their expenses. They have to ask for loans and stuff like that. It's sure heartbreaking to see people who don't have enough money to pay for this or that. They could have gone to college and lived a better life in a better community and stuff like that. (Personal communication, October 2006)

My mom and my brothers said it was good, to do it. My parents didn't go to college. Only my mom went to high school, but my brothers are going to college. They encourage me to go to college. They're behind me and tell me to go for it. (Personal communication, October 2006)

In-Depth Interview: Students

My family told me to take every course I can that will get me one step further in college. My brother and sister told me about it. They didn't go to college, but they influence me. My parents didn't know about dual credit, but I told them about it when I heard about it and they said, 'Well, that's great! You should go for it.' And from there they kept pushing me and telling me to take the test. If no one had encouraged me I still would have taken the test, but I wouldn't have been as motivated to do it. I would have taken the test regardless. It's important what my family says to me because being a family they're going to be there for you, and they're going to encourage you to do the right things. They're going to advise you so you can participate in dual credit. (Personal communication, October 2006)

I'm the oldest and it's up to me to set the example. I'm going to college and I want them to be proud of me. My parents encourage me because they didn't get to go to college so they want me to go. (Personal communication October 2006)

Well, my mom was really glad to see that I passed it so she thought it was a good idea. I told her about it and she said, 'Good, do it. See if you pass it.' Then I passed it, so she was really proud. I didn't really tell my dad. I don't know. I really tell my mom everything. (Personal communication, October 2006)

I never really talk about it with my friends, but my family backs me up. All my ideas—my parents—they'll always back me up. They tell me if I want to assert myself or something, they'll back me up 100 percent. They tell me they're proud of me. They'll be there to support me when I'm ready. My parents told me when I was applying for admissions for dual credit to go for it. (Personal communication, October 2006)

High School and College faculty members' opinions about parental influence were slightly similar to those of Focus Group One. They perceived a lack of support from parents but lack of information was not factored into the equation. At the College level, the faculty member argued: "Externally, I don't see a lot of parental involvement, so if you don't have that, it's [dual enrollment] just not going to go anywhere." (Personal communication, November 2006) A High School faculty member agreed: "There's not a lot of nudges, especially not at home, and then there are some other things." (Personal communication, November, 2006)

Additionally, a small number of teachers were involved in the dual enrollment process, but one teacher in particular was the catalyst and driving force behind the dual enrollment program. The general consensus among students who were interviewed individually was that the teacher used incentives to motivate them. It helped that he gave clear and succinct instructions. They said

the teacher was trustworthy, a good listener, used simple language, and encouraged them to succeed.

The students also enjoyed the benefit of their courses being taught by someone whom they felt comfortable with. One High School teacher said that students were motivated by trust and added that sharing student success stories to promote dual enrollment was also beneficial.

When interviewed individually, dual enrollment participants championed the quality and guidance of one teacher. One junior said: “I didn’t think much about dual credit at the beginning until Mr. Parkes told us about it... then I was interested,” (Personal communication, October 2006) and one senior said: “I wasn’t thinking of it. I just wanted to learn. I just wanted to have his [Mr. Parkes’] class because he’s a good teacher. When he explained all the things about dual credit, I applied for it. I didn’t participate as a junior, but I wish I would have.” (Personal communication, October 2006)

In the same way, students perceived the college placement test, often referred to as the dual credit test, as a challenge. The idea of taking a voluntary test was unappealing. The test was long and the schedule was inconvenient. Students recalled how one teacher made a profound impact on their decision to take it:

In-depth Interview: Dual Enrollment Participants

The teacher told us about it one day. He talked about the program and then he asked who would like to take the test. In the beginning nobody raised their hand, but then he said, 'I'll give you five extra points.' So everybody got excited about it. Then he explained how long the test was and we didn't like that. My first impression was that I don't want to take a test because most of the tests are hard; they test your knowledge. I don't really love the idea of taking tests, but then I thought about the extra credit—some extra points. Why not? So, I raised my hand. The teacher told us the test was going to be after school, and it's a four-hour test. So I didn't really like that either. That was like, two days before the test. I went home and talked to my parents about it. Oh, yeah, take it. That was a Tuesday, you know. I'm going to take it. So the day came and I went home. I think it was a Wednesday. I went home and then came back to take the test. My parents encouraged me and the five extra points that my teacher mentioned motivated me. (Personal communication, October 2006)

He's a great teacher. He explains everything clearly, like the homework. You don't have any questions because he explains it step by step and if you don't understand, he'll repeat it again and again. He goes to the students who don't understand and he offers tutorials after school. He does it on his own time. Mr. Parkes wants to see us succeed. That's why he stays here—because he cares about us and he wants us to be better. (Personal communication, October 2006)

The teacher [Mr. Parkes] told us that if we took the test, he would give us five points on the final grade. I think that's what he did, and he motivated me even more because five extra points, we don't get them that easy. He gave us an incentive just for trying the test. (Personal communication, October 2006)

I started dual credit because my teacher recommended it to me. My teacher singled out everybody. He gave them all an opportunity to take the test. The teacher told me to do it. Mr. Parkes is my teacher and he motivated me. He's a great teacher. He teaches well. He takes his time; he explains everything in detail. He's a great teacher. Mr. Parkes stands on the board and explains everything. You have questions? He explains everything. So he's a great teacher. He's great, he's great! The other part that helps us is that he talks very good English because most of the other teachers have trouble speaking our language [English]. So that's what helps us too. (Personal Communication, October 2006)

In-Depth Interview: Faculty

Most promotions involve talking it up from day one. I share success stories, day after day from the first day students walk into my room. I tell them about the student at UT, and how happy she is that she got dual credit and didn't have to take these classes. Or it helps that there's a kid who's had dual credit before. That was the easiest sell because they knew last year they missed out. Kids sit in the room with them that have already received dual credit. That was an easy sell. It's just me telling them how it works and

that it will help them, and that they'll get to know and trust me. They still don't really understand at this point what dual credit is. But they trust me that it's a good thing. They take my word that it will help them, even if they don't use it. One student got her dual credit and didn't even need it. Rice won't take it. Another girl took it last year and didn't want to take it this year because she's going to Rice. She knows Rice won't take her dual credit. That's a problem, too. Students think they don't need it, but I tell them—you never know. I just think promoting it is pushing it. I do. (Personal communication, November 2006)

Research Question Number Three:

What barriers prevent students enrolled at Sam Houston High School from participating in dual enrollment?

Students were asked about the challenges they faced when choosing to participate or not participate in dual enrollment. Their most common responses included: (1) information is lacking, (2) college course placement procedures need improvement, (3) academic unpreparedness, or perceived academic unpreparedness, and (4) AP is better than dual enrollment.

Similarly, College and High School faculty members described the following limitations: (1) a lack of College and High School collaborations, (2) dual enrollment competes with AP, (3) dual enrollment competes with TAKS priorities, (4) course placement policies are unclear, (5) a lack of teacher

qualifications, (6) issues regarding transferability of credits, (7) a lack of student motivation, and (8) College and High School image.

Barriers Identified By Students

Lack of Information

A majority of participants responded that a lack of communication was a hindrance to dual enrollment participation. They reminded us constantly about the many different ways parties should be communicating. Their point was that more talks, orientations and formal presentations were something that was needed. If the aim was to get students to participate in dual enrollment, information must reach them. Might it be possible to schedule assemblies in the auditorium? Student after student shared stories that illustrated that dual enrollment could be enhanced if someone communicated with them. One piece of advice came from the counselor: “HCC needs to be more proactive in communicating with students. They should ask students if they’re interested in dual credit and then advise them on the test, how to fill out the application, and where to send it.” (Personal communication, November 2006)

Almost certainly, students were unaware of the dual enrollment program before their senior year. They blamed low participation rates on lack of early information. Students had no previous knowledge of dual enrollment until one teacher told them about it: “Students probably don’t participate because they

don't know about it. I mean, before my senior year, before I had Mr. Parkes, I didn't know about dual credit.” (Personal communication, October 2006)

Another interviewee replied: “Well, just knowing about it. I really didn't know of it until my teacher, Mr. Parkes, told me about it, otherwise, I wouldn't really have known about it.” (Personal communication, October 2006) The feeling was widespread. Students faulted teachers saying they failed to provide information school-wide. Teachers were uninformed, but still, students held them partially responsible for low participation rates.

A critical role for teachers was to get information out to all students, not just a select few. An even stronger point was that more students would take the college course placement test if more teachers communicated with more students and also prepared them for the test.

A lack of information was evidenced in the fact that students often misunderstood the college course placement test. The test included a basic reading, writing, and mathematics skills component, but students often thought they were testing only for math. Equally important, if they passed other subjects besides math, students did not know about it: “I thought I was testing only for math. I do better in reading and writing, better than math. I have an AP English class, but math was the only class that was offered to me.” (Personal communication, October 2006)

The researcher was struck by the number of students interested in taking other courses besides math. Those who under-performed in math desired an opportunity to retest but according to the students, the test was a one time event:

In-depth Interview: Student

I got the test back and they said I didn't meet the standards. I failed by one point. I wasn't told that I was testing for any other subject. I would have taken dual credit if I had tested for the other subjects and passed. I've only taken the test for Pre-Cal. It was for math mainly. I don't know if I tested for any other class. It would be a good idea to take other courses. They're probably being offered, but I just don't know about it. They told me that I was testing for Pre-Cal. I guess that meant that was the end of dual credit! If dual credit were available to me in the spring, I would take it, but I would prepare for it. Hopefully I would pass the test, but the teacher told me this would be the only test they would give, so I probably won't be able to take it. I would like a second chance. I already know what's going to be on it. I can prepare for it and this time, I'll pass it. The math test had only 20 questions, and just one point caused me to lose the dual credit. (Personal communication, October 2006)

Another student anticipated failing the test because she thought it was only for math. She did not take the test and suggested more students would take the test if they were better informed:

There was really no point in me taking the test because I'm barely passing math with a 70. I don't like math. I didn't think I would have been able to pass it but if it were another class, I would have passed it. HCC didn't explain it to us. That's probably why more students don't take the test. It would have been better if HCC would encourage more students to take the test. More students would take the test if they understood and someone explained it to them. (Personal communication, October 2006)

Focus Group One: Dual Enrollment Participants

Out of all the teachers I had last year, it was the same teacher who told me about dual credit. That's seven—about thirteen teachers I had from this year to last. Out of that number, only one teacher told me about dual credit. The senior teachers are the ones that inform the students more. The freshmen and sophomore teachers need to tell us about dual credit because it benefits anybody, and college is for everyone! So why not tell the regular and the AP, and not just the AP students? Dual credit should be offered to anybody and they don't know that. What I'm saying is that the teachers don't know, or they don't want to inform us or something because out of all the teachers here, only a mere 10 percent know about the dual credit program and it's only their students they inform. Students need to know, is it a test, or is it a college program, or dual credit program? Most students are not going to tell their peers. The word doesn't spread out. If teachers would tell all their students, more students would take the test and more students would participate in the program. Not all the teachers know about it, or they do, but they don't share it. Whatever the

case may be, most of the teachers here don't know about the dual credit program and this is the result. (Personal communication, October 2006)

I think HCC should send representatives or something because we never see anyone here from HCC. They should send people to talk to us, possibly during the day. Mr. Parkes is the only one who tells us about dual credit. There's no one else. HCC does not explain the rules, or the time of day. Dual credit is not difficult. I really didn't prepare for it, but I wish I had. The best time to prepare us is in the tenth grade because once we're in ninth grade, there's so many things going on that we don't understand. We're not going to understand the importance of dual credit. So, I think maybe not ninth grade, but probably by the tenth. We don't have assemblies often, but HCC should come to the auditorium. Our only assembly this year had nothing to do with dual credit. Newsletters don't come out as much; they're not very effective because students throw them away. Maybe we don't get them often enough, or maybe they're always the same. Maybe people actually read them, we really don't know. HCC needs to bring more representatives to talk to us face-to-face about dual credit. Don't leave it to our teachers to tell us about it. I think if they brought more representatives to an assembly, more students would know about dual credit and would want to sign up. (Personal communication, October 2006)

HCC needs to inform all Sam Houston High School teachers and Sam Houston High School teachers need to spread the word out to

all students. HCC needs to let the students know that the program exists as early as the freshman year, that way students will be prepared for the test. Dual credit benefits me, it doesn't hurt me. I feel school officials don't encourage us to take the test because they assume we can't pass it. It's easier to stereotype us than encourage us to take the test. (Personal communication, October 2006)

Focus Group Two: Non Participants

HCC needs to talk to all the students, not just a select few. HCC should not assume that students can't pass the test. Let the teachers know that dual credit is available and get the word out to students starting in the freshman year. We like the location that is provided. Offer the test during regular school hours. That's what we want. (Personal communication, October 2006)

I think we really don't get dual credit because some teachers don't talk about it. Others do, but the problem is that those students don't tell other students. It's not really something that goes around to all the students. Teachers need to let us know what's happening. HCC needs to talk to teachers so they can inform us and let us know what we need to do to take dual credit classes. (Personal communication, October 2006)

In-depth Interview: Student

I guess they should enforce dual credit, but really, I don't think they do it because it's a benefit, it's not a requirement. If they would announce it, tell students about it and prepare them for it,

more students would be more confident about their skills, and therefore would take the test. HCC needs to send college students to share their own college experience. That's what I think. The minute students walk in the building in ninth grade, someone should be preparing them for all kinds of things, not just for one particular test. (Personal communication, October 2006)

College Course Placement Procedures

Study participants observed several weaknesses in the testing process. The most common complaints were: (1) inconvenience of the test schedule, (2) conditions under which the test was administered, (3) unorganized test administrators, and (4) fear and/or lack of confidence to test.

According to one faculty member, HCC-NE and SHHS tried to accommodate the students by offering the test in a variety of ways: (1) after school at 3 o'clock p.m., (2) during regular school hours, and (3) on the day of early class dismissal at 1:15 p.m. Despite their accommodating efforts, the turnout for testing was low. One teacher admitted that testing after school discouraged students and that testing during regular school hours was the best option, however, the adjustment created an imposition on teachers. Ultimately, the decision weighed in favor of the faculty.

The testing schedule was unpopular with the students. Personal safety was cited as a concern that prevented some students from staying after school. They

were confident about their preparedness, but the three-to-four hour test conflicted with extracurricular activities and personal responsibilities such as homework, home chores, jobs, or volunteer work in the community. Moreover, the testing room was too small to accommodate everyone and some students were turned away. The testing environment was also disruptive and test administrators were not helpful.

Focus Group One: Dual Enrollment Participants

It's just the fact that it's after school. When my friend took it last year, I was like, oh what a nerd! She stayed after school and took the test, a voluntary test at that, you know. Why would you go? And so this year, I did it. Excuse me! As I judged her, well, I'm the nerd now! I think the biggest challenge was coming after school to test. Most of us were in there for several hours. We already had the knowledge and all that, you know. So, I feel we were prepared enough. It was just the fact that we were just supposed to take the test after school. (Personal communication, October 2006)

In my class there were students who came in late and there weren't enough seats, so they had to leave. They were told that they didn't have any room in the class. It was like first-come-first serve and they had to leave. They were told to go to HCC on Saturday. Most of them gave up because they had to go to HCC on a Saturday. (Personal communication, October 2006)

Focus Group Two: Dual Enrollment Non Participants

I applied for dual credit, but I didn't take the test. I was supposed to come after school to take the test. I'm taking the class, but I'm not getting dual credit for it because I didn't take the test. I couldn't come after school that day. There was only one day to take the test and I couldn't make it up. If I could've made it up, I would have. I had a job, so I think I was working. The test was offered only one day. I'm a senior. I don't know if I can still take a dual credit class. (Personal communication, October 2006)

In-depth Interview: Students

The test was probably three or four hours. I couldn't stay after school too long because I didn't have a ride and I worried about that. It's too far to walk home. What happens, too, is that they test after school and you get pretty tired by the second hour. After one hour, I got a headache. It didn't help the test was timed. I think HCC can improve many things. HCC should make students feel more comfortable. They were walking up and down and watching everything. They made us feel like criminals! They had a lot of people in the room and it was crowded. It was a total distraction and they didn't explain anything clearly. A lot of students had to ask questions. HCC was not organized, and they contradicted themselves. It was like, total confusion! (Personal communication, October 2006)

Maybe HCC should be more organized and not test as many people as they did at one time. Testing after school is not a good idea. I do nothing but homework, so I don't have time to do

anything after school. There's really no time to watch TV except on weekends, and not even that because we volunteer around the school. Sometimes we go to the local food bank or local churches and stuff. (Personal communication, October 2006)

In-depth Interview: Faculty

It's been better this year than last year because of their early dismissal date. I've seen some years when we had it at three o'clock on a Thursday or four o'clock on a Wednesday. I think that hurt our numbers a little bit. They've even encouraged testing during the day. HCC thought, we'll get the kids out of class that way they're here in school, and that really hasn't helped that much. I don't think HCC is really that concerned about the time; they come whenever I recommend it. They've [SHHS] discouraged us from trying to get these kids out of school. There are so many field trips and things going on where they kind of frown on it and I frown on it, too. I view taking kids out of classes as imposing on other teachers. In the spring, we have so many field trips. But in the fall, we don't have a lot of that going on. I don't want to impose on teachers for my thing. Usually they're done testing by four or five o'clock and they like that better. When I've told a kid, you're going to test at three thirty and you might be here until seven, that's scared them away. It's probably a better idea to pull some kids out of class to increase some testing numbers. We've done it before, but I don't like it personally. I don't like to infringe on other teachers. (Personal communication, November 2006)

In addition, the College faculty member explained that students were not motivated to test because they were already over-tested. Besides that they lacked confidence to test for fear of not passing. Students also failed to understand the long term benefits of dual enrollment:

They don't want to test. That's part of the problem. We set up different dates to test and had all these kids who had signed up saying, yes they were coming. They were going to do this and that and the other. We were suppose to have 30 something kids, and then one of the other teachers was suppose to have another 20 something, and we had 12 show up. They don't want to test. It's two fold. There's a fear. I mean, there's a straight out, I don't like testing. Our kids are already tested so much they know how they already did. If they're testing in the first place that means they didn't make the level that they needed them to on their high school TAKS. To them it's like, why do it again? I'm not going to pass. The second part is just a misunderstanding or non understanding of how dual credit can affect their futures because they don't really see themselves as college-bound and therefore, it doesn't matter. (Personal communication, November 2006)

Academic Un-preparedness or Perceived Unpreparedness

Non dual enrollment participants gave several reasons why they were not academically prepared. Among them are: (1) inability to pass the college course placement test, (2) inability to complete the test, (3) lack of familiarity with the test, and (4) failure to pass the TAKS test.

Seniors applying to the dual enrollment program were mostly students in Advanced Placement (AP) classes and juniors were Pre-AP. As a result, students were expected to pass the college course placement test. When a large group of students tested for one particular subject, however, only a few passed the test. The teacher expressed disappointment: “This year it’s a mystery to me because I only have 12 kids that got dual credit and yet we tested a big group. I really have a good group of students. They tested more than last year but I have fewer students that qualified this year. They couldn’t pass the subject. They seem to be pretty strong kids.” (Personal communication, November 2006)

On the other hand, the counselor indicated that AP participation did not guarantee eligibility for dual enrollment. According to the counselor, most AP students desire to participate in dual enrollment but many are disqualified because they fail the college course placement test, lack interest in the program or choose not to take the test.

Time was a factor for one senior. He was not prepared for the number of questions on the test and wished he had devoted more time on the harder questions. He and others said they failed the math section by just one point.

One junior found the adjustment from high school to college a bit of a challenge. The junior took the test in the beginning of the school year before the material was covered and suggested it was too soon to demonstrate college-level proficiency. After a few weeks into the school year, however, the student learned

the material and regained confidence. The student and faculty member suggested that practice tests could potentially improve test performance.

Serena, a junior in the cosmetology class was the only student who declared un-preparedness as a result of the Texas Assessment of Knowledge and Skills (TAKS). The student said she had failed the reading portion of the TAKS test. She said the fact that her class was combined with juniors and seniors, including dually enrolled students, did not affect her performance: “I have cosmetology but not as dual credit. My class is mixed with juniors, seniors, and sophomores. It’s pretty much the same thing. I’m doing well in the class. I got a low grade in reading, and that’s why they didn’t accept me in dual credit.”

(Personal Communication, October 2006)

The tone of interest in dual enrollment for all of these students was set. They aspired to participate, but for different reasons fell short of meeting requirements for the program.

Focus Group Two: Non Dual Enrollment Participants

When we took the test it was in the beginning of the year. It was stuff that we hadn’t seen. It would have helped to take the test toward the end of the course when I would have had information that would have helped me take it. It would have helped to let us know what the test was going to be over. I’m still in the class but I won’t get dual credit. I expect an A because I’m doing good in the class. I don’t really feel bad about it because I had the opportunity

to pass the test just the way other students did and that was my own fault for not getting the credit. (Personal communication, October 2006)

In-depth Interview: Students

I guess I wasn't prepared for it when I took the test. It was a timed test so it was probably that I didn't answer as many questions. Well, I did answer all the questions but I didn't have time to work on the ones that required a lot of work. The time that was given for the test took me by surprise; I couldn't finish in time. The test was at least three hours. There were several sections that needed to be done. My teacher told us what scores were acceptable and he said that we had to get a 42 in the test and anything below that was a fail. I made a 41. (Personal communication, October 2006)

In-depth Interview: Faculty

If they're already in the AP class, they're going to college. They're in the top ten percent of the class and they want to get credit for their classes. The instruction doesn't change. For dual credit, the student has to qualify. Just because he's AP doesn't mean he can take dual credit. It's not that they choose not to participate, they don't qualify. So if you think of it as a choice, all of them would not qualify to be in dual credit because of the test that HCC gives them. HCC determines if they qualify. They didn't pass whatever test they were given. Maybe they're not prepared or they don't want to do it, or it doesn't matter to them. (Personal communication, November 2006)

They told me it was a new test. No one taught them the test. Probably if HCC handed me the test and let me teach it for a couple of weeks, you know. We talk about how we could raise these numbers and of course, I'm not saying cheating, but still have test integrity. I could actually mimic, or if you will, model the problems that are on the test. If I had the THEA test and probably taught it from August until September, when they took the test, we could probably increase some numbers, probably a lot actually.

Barriers Identified By Faculty

Lack of High School and College Collaboration

A major roadblock in the partnership, according to the High School counselor, was that the College did not send professors to the High School to teach their classes: "It's about getting instructors down here, which I thought at one time they wanted. They said they would do whatever it took to do it and I guess it was only lip service because they didn't follow through. They saw an obstacle and stopped there." (Personal Communication, November 2006)

Asked if College professors were welcomed at the high school, the Counselor replied: "Yes, yes. First thing I told you that we've never had a teacher here from HCC simply because it does not fit the glove of HCC. So the question is could it happen? Yes, it could happen, but HCC would need to make it happen, not the high school." (Personal communication, November 2006)

Furthermore, the counselor was not optimistic when asked what needs to happen to get College professors to teach dual enrollment classes at SHHS: “That won’t happen. They’ve talked about it. I know they’ve talked about it, but no.”

(Personal communication, November 2006)

Continuing the thread, dual enrollment was unsuccessful because concerted efforts were not carried through. The two institutions faced conflicting class schedules and the College was not willing to compromise:

Actually, the question should be: Why doesn’t HCC accommodate a dual credit class in my school? The only reason we don’t have it is because our schedule never has fit in with HCC so that their instructors can come over here and teach class. That’s the majority of the reason why we don’t have it, because it doesn’t fit into HCC’s way of doing business. HCC wants the class to meet every day at the same time, and it doesn’t work like that at our school. For example, our schedule—Monday, Tuesday and Friday, our kids go to one through seven classes. Wednesday they go to two, four, six classes, Thursday they go one, three, five, and seven. That doesn’t work for HCC. They want the class to be everyday from eight or nine, or whatever. The problem was solved. The answer was that HCC wanted a constant schedule. They had to meet every day at the same hour. They said that they wanted to do it after school. I said, great, and we got some students. They told me the class formed and I never saw the instructor. When I checked with the students they said there was no class. So the class never

formed after school. We're not on a constant schedule, so we don't match on that culture. (Personal communication, November 2006)

On the other hand, the College faculty member admitted that their faculty was not assigned to SHHS. He was aware, however, of the need for qualified faculty. Issues of power, authority and control made things more challenging. Consequently, High School teachers were the preferred choice for dual enrollment:

If they have a teacher teaching one of the classes that matches-up, and their teacher has the correct credentials, we use their teacher. If their teacher doesn't, but is willing to have us, we send someone two or three days a week, depending on what their schedule is over there. Right now, I don't have anyone being sent out to Sam Houston. You have to pick somebody who's willing to work with us. Dual credit is harder to do; it's insurmountable. It basically comes down to both of them lowering their egos and being willing to work with each other. You have a whole lot of the high school teachers being offended that they're not qualified to teach college, even though I tell them I can't teach high school. I don't have the qualifications to teach it, you know. And then you have a lot of our adjuncts who feel like they want to be in charge when they're in that classroom and they're not. You've got to find a good match or else you know it's not going to work. That's why I prefer to just have the high school teachers, if at all possible. (Personal communication, November 2006)

Dual Enrollment Competes with AP

The study revealed that students had a better grasp of AP, especially in regard to transfer policies, and that AP mattered more than dual enrollment. A similar theme was echoed by all faculty members. They perceived that AP was more influential than dual enrollment because: (a) AP enhanced the grade point average favorable to the top ten percent rule, (b) more High School teachers were certified to teach AP, compared to dual enrollment, (c) transferring AP credits was easier, and (d) the High School enjoyed the AP status.

Focus Group One: Dual Enrollment Participants

Isn't AP a little bit better than dual credit because once you pass the AP exam, it can possibly be accepted by many different institutions? The way I understand it, dual credit is only accepted by HCC. What if I go to another university and they don't accept my hours? I think probably I considered AP better because it's accepted by many universities, where dual credit is accepted only by one college—HCC. So, I think AP is more valuable than dual credit. That's why we have more AP than dual credit. I think it's better to take AP than dual credit. That's why Sam Houston has more AP than dual credit. (Personal communication, October 2006)

If you pass the AP exam at the end, I know they give you the entire credit so you won't have to take that course in college. You take the course and at the end of the year you take the exam. If you

pass it, they're going to give you the college credit for that course so you won't have to take it once you go to college. You have the whole course done. It's not just a couple of hours that you have completed for that course. Isn't dual credit—you get hours right? With AP you pass the whole course. You don't have to worry about it at all. (Personal communication, October 2006)

In-depth Interview: Faculty

Dual credit conflicts with AP. AP gives a weighted average on the high school GPA, dual credit doesn't. So, to alleviate all that, you should give dual credit in an AP class. A lot of kids will say they don't want to take dual credit because they're trying to get a higher GPA so they can get accepted at a particular college. While the dual credit doesn't give a high GPA, AP does. (Personal communication, November 2006)

It's a problem for two reasons: AP still gets that extra point on their GPA for their high school standing that dual credit does not. The schools want it because they get funding and they get recognized as an AP school if they have a certain amount of students in AP. They don't get anything for dual credit. Hopefully, that's going to change because they just had House Bill One passed, which said that they must give students an opportunity. There's a big push for AP if you look at Newsweek and a couple of the other magazines where they rate schools. It's always based on how many AP and IB students they have. It has nothing to do with dual credit, and that's a problem with TEA and any of the other accrediting agencies that don't give us the credit we deserve. If

they're going to make us equal, if they're going to say that they respect us . . . There's very much a stigma with dual credit. (Personal communication, November 2006)

Another issue that's being brought up in the HCC-HISD partnership meetings concerns teacher qualifications. TEA says that if I have an AP teacher who's qualified to teach for the college, I can run that class and count it as AP. If the students don't pass the AP test, they can still get dual credit. The problem is most of my AP teachers don't have a Masters. At that point, I cannot send a HCC teacher to teach AP because they don't have the credentials to be an AP teacher. So, the only way it works is if their [SHHS] teachers qualify . . . then it's an easy match-up. It is the AP class; we're just giving college credit. They can't do both, and obviously if they do, the AP is coded AP. They take the class, they pass the test. They're going to take their AP test scores around. They're not going to pick up their HCC transcript because that one will be more influence than dual credit. (Personal communication, November 2006)

Admission in college is getting tougher and tougher, so I'm going to advise my child to take an AP class over a dual credit class because like I told you, the problem is being accepted in college. That's the major obstacle, that's the first one. Being in the top ten percent right now is where they need to be. A dual credit class is great because it saves you money, but you cannot save money if you don't get to go to that university. So the primary focus should be getting accepted in college and what's going to get you there is

going to be that AP class, not the dual credit. (Personal communication, November 2006)

Dual Enrollment Competes with TAKS Priorities

During the course of the study, the High School was under pressure to improve State assessment rates in reading, math, and science. The overwhelming priority for the High School was preparing students for the State's TAKS test because without it, students could not graduate. With the focus on TAKS, dual enrollment took a back seat. The program lacked focus as well as administrative support:

In-depth Interview: Faculty

Dual credit is not a school-wide priority for one thing because the school is worried about the TAKS test. Right now that's driving the energy of administrators. I'm sure along the way so many other things come along that they've got to deal with. Dual credit is pretty low on the totem pole. If you ask the principal if it's important, she'll say, yeah, it's important; I'm glad we have it. But if you ask her to list 20 things that are important on this campus or what to do, dual credit is going to be 21st. It's not a huge priority. Dual credit gets done because I push it or a couple of others push it. There may be a handful of four or five other teachers in dual credit, but if it doesn't come easy, they won't do it. The reality is what they've got to deal with. The emphasis is on passing the TAKS. When you have about 240 seniors that haven't passed the

TAKS, there's a problem. If they don't pass the TAKS, they don't get a high school diploma. (Personal communication, November 2006)

Unclear College Course Placement Policies

High School faculty members were annoyed by discretionary changes in testing policies and procedures. The new policies were questionable and were cited as common restrictions to program participation. For example, one High School faculty member indicated that his class was not offered because students were unable to satisfy the new requirements. The instructor referenced a previous policy that enabled technical students who were exempt from the college course placement test if the TAKS had been completed. That policy was no longer in effect, disqualifying many students.

Another perspective resulted from inconsistencies in the assessment process. Some of the brightest students who should have qualified were incorrectly assessed and as a result, were erroneously excluded from the class roll. The instructor blamed the discrepancy on the College or to the bureaucratic nature of the testing program. Regardless, the situation threatened the success of the program: "I don't know, I think they're getting leery about some rules and stuff. In years past they weren't worried about it. It's, changed." (Personal communication, November 2006)

First of all, dual credit at this school is in the hands of HCC and it usually comes through the testing program. They screen the people. The problem that we have is that our school does not put the qualifying candidates in all the classes. You have to have at least 10 to have the dual credit. I don't have any dual credit this semester and it's partially due to the fact that HCC isn't going to change its policy or isn't getting quality kids in a bracketed area. Out of 30 kids that take the test now, maybe 15 qualify. (Personal communication, November 2006)

It all changes. It's up to HCC. For example, they had to take a qualifying exam like all the freshmen do. After they take the qualifying exam, if they pass it, they're in the program. If not, they're not. There never used to be a qualifying exam. They were career path—they took it; that was it. HCC has changed the rules of the game, somehow. This is the first semester where they start having to take the test. Now why that is, I don't know. If it was a career path, they looked at the TAKS scores and basically said 'we're going to let them in,' this was the first year I had a problem with that. So I don't know why HCC changed the requirements. I don't know if they did it themselves, if higher ups did it. I have no idea. (Personal communication, November 2006)

My smartest kids were taking the test. Three of the kids in the class had the dual credit last year, which they got as juniors, so of course they couldn't take it this year. I'm just surprised some of my strongest students didn't pass the test. There are other things I could say, too. I've just seen sometimes the testing process a little

murky. I had one year where I saw some numbers on the kids' scores and this kid got put on my roll and I saw some kids with some higher scores. I didn't understand why people were getting placed and not others. I saw one or two students in particular whose scores were lower than kids who weren't qualified. The students who didn't get in my roll for the dual credit class, they were higher, but they didn't make it. I wasn't sure what the cut off was and some lower kids somehow got placed. I don't know, maybe some clerical errors. It's a lot of bureaucracy and I think that's hurt some of the numbers, too. There's some bureaucracy getting kids on the roll that should be and they're not. I've almost never had a dual credit student actually fail. (Personal communication, November 2006)

Lack of Teacher Qualifications

High school teachers were required to have special credentials to teach dual enrollment. In other words, they had to meet the same qualifications as regular community college professors, a Masters degree and 18 graduate hours in the discipline taught. Workforce teachers were not required to have advanced degrees: "It depends on the high school instructor's qualifications. They have to have that Masters degree and the 18 graduate hours that they're teaching their core course in. If they're teaching a workforce course, then you usually have to have an associate degree; a bachelor's is required, and then 36 months of work experience." (Personal communication, November 2006)

A hiring policy could potentially enhance the quality of the dual enrollment program, but the study found that regulations concerning instructor credentials limited course offerings and thus threatened the success of the program. For example, the rules permitted students to enroll in the subject areas for which they were college-ready. A student, who did well in math but not in English, was eligible to enroll in college-level math. However, the class was not offered if the High School teacher lacked the credentials to teach the course. Here's what one High School faculty member had to say: "Most of them aren't even getting English dual credit because none of our English teachers are even qualified. They don't have the Masters or they haven't gone through the stuff with HCC that would qualify them." (Personal communication, November 2006)

Another High School teacher agreed. He said that dual credit was in fact, contingent on teacher credentials but most teachers at the High School lacked them: "You have to have a Masters at least with 18 hours in your subject area. You can teach a dual credit class if you're certified for dual credit. So, if you don't have at least that, you can't teach, and on this campus there are very few people that have that." (Personal communication, November 2006)

One student participant made the connection between lack of knowledge and lack of qualifications: "I don't think enough teachers know about dual credit. Maybe they don't qualify. They never say anything about it. Maybe they know, but they don't tell us. The only teacher I know who knows about dual credit is

Mr. Parkes. He's the only one who tells us about it or is qualified. (Personal communication, October 2006)

Certainly, identifying instructors was challenging. AP teachers seldom had the credentials to teach dual enrollment: "Teachers teaching the AP class may not have the credentials to teach dual credit, so that's one obstacle." (Personal communication, November 2006)

To illustrate the disconnect between the number of students eligible for dual credit courses and courses not offered due to insufficient teacher qualifications (Personal Communication, November 2006), the researcher refers the reader to the following data: In September, 2006, 45 students took the college course placement test. Of that number, 21 students were eligible for a reading and writing class, or six credit hours. Twenty five students were eligible for reading only, or three credit hours; and six students were eligible for writing only, or three credit hours. Despite their qualifications, no reading or writing class was offered and students lost a dual enrollment opportunity. Moreover, students were not aware they had qualified. (Personal communication, May 2007)

Transferability of Credits

Credits earned were posted on the College transcript but in most cases did not transfer to four-year postsecondary institutions, according to one study participant. The counselor explained discrepancies in articulation agreements and

noted differences between transferable and articulated credit. He said that the courses students took while enrolled in the dual credit program did not transfer as needed. The credits were useful for general education or other academic goal, but rarely transferred toward the student's declared major. Following is a summary of what the counselor had to say:

My biggest problem with HCC is that they're like a used car salesman. They sell their dual credit classes and when students graduate and are ready to go to the University of Texas, there's a problem. For example, if students take an English class, they think they're going to get English credit. Once they get to the university, they only get elective credits. They don't count for filling the requirement for graduation. They do count for credit, but not where the student thought. Maybe UT will not accept the credit as a History or English class. I have yet to see how my students do once they get to HCC; I have no way of knowing what obstacles they face there. I do know they face obstacles because even I don't understand it. I understand what I'm told, but I have never received positive feedback from any of our dual credit students. It's the idea that they think they're going to get one thing and then they get something else. It's like joining the military, you know, thinking they're going to get swimming pools, movie stars, condos, and all that, but they end up with something else. HCC needs to be up front with students and treat them like they're real college students. That's what I would want for my child. The classes they take here in high school do not translate to the same class in college. (Personal communication, November 2006)

High School Image

The school setting also appeared to have a direct impact on students' motivational levels. The stigma of belonging to a low-performing school affected their self image. Having visited a testing session, the HCC faculty member observed the following:

I went into a testing group right after they had gotten their second year status as a non-performing school. The kids were rowdy and not listening to the testing proctors. The students asked, 'Why are you here? Why are you testing? You're at the stupid school!' They know what their image is to the outside world. The teachers always told me they're tired of testing. They don't want to do it. They feel it just proves to everyone how stupid they are, and they don't like it. (Personal communication, November 2006)

Research Question Number Four:

How do HCC-NE and SHHS Collaborate to Attract Hispanic Students to the Dual Enrollment Program?

Dual enrollment was not enforced at the High School. The program lacked administrative leadership and faculty support, and information was not disseminated school-wide. Faculty was expected to do more with less and a priority for counselors was to get students into classes. Nevertheless, faculty members worried about the program. On the one hand, the counselor blamed the

College for lack of progress. Conversely, faculty members said the College was doing a better job.

At the College level, student evaluation of instructors was not required and there was little evidence of program evaluation. In addition, College representatives attended High School events and set up tables with information, but students were not encouraged and/or failed to attend sponsored events. Students longed for recognition and encouragement from the College to participate. Asked about the College's role in closing college participation gaps among Hispanics, a member responded, "It's not that specific in terms of ethnicity. . . . Recruitment right now is strictly through the teachers and word of mouth through the teachers." (Personal communication, November 2006) The general consensus among all students was that the College was not doing enough to attract them to dual enrollment.

The *HCC Comparative Enrollment Report, fall 2006, October 30, 2006 and October 31, 2005*, reflects 46 students enrolled fall 2006, compared to 52 students the previous year. The figures suggest that dual enrollment participation gaps are not improving. High School and College faculty members gave several reasons for the decline:

It's gone downhill because nobody's pushing it. HCC is not pushing it that I'm aware of. We will support it if it benefits the kids but since we don't know about it, it's not something that's

happening. Right now HCC is not doing a good job of promoting dual credit because I don't know of any classes that are being offered. (Personal communication, November 2006)

I don't think students are encouraged school-wide. The counselors don't encourage students that much. Students are encouraged if they happen to get a teacher who can do the classes. Teachers don't encourage them and it's not going to be done school-wide. It's not going to be principals, counselors, or administrators. Not to be negative on them, it's just they have so many other things to worry about. They're worried about getting these kids the right schedule. Probably the last thing on their mind is getting Jane Smith with this teacher so she can get dual credit. It's just far from their minds unless I go right to the counselor personally and say I need you to put Jane Smith in my class so she can get dual credit. It's not something that's going to happen. There are so many other things to worry about. Like I said, I haven't seen a push towards it or help. I wouldn't say there's any push for help here versus in the past. I see HCC is pushing it more, though. I know if HCC worked with our administration that may help them decide. I worry about that every year. (Personal communication, November 2006)

Our recruiters go over there for the PTSA meetings and College Days. They go and sit at lunch times and things like that. But I'm still going to fall back on the, you know, there's got to be a presence. If nobody comes by to pick up the brochure, if nobody attends meetings, if students don't take the information home,

there is only so much you can do. The opportunities for learning about it are there but our efforts aren't getting matched by the community and by administrators, quite frankly. If they can't get people to attend or excited or get them to really feel like this is something that's possible, then I can't just stand out in the parking lot and yell out into a blow horn. I have to be provided the forum. I have to be provided with the attendance. (Personal communication, November 2006)

Focus Group Two: Non-Participants

HCC needs to get our attention. They should come to our classes and pull students aside. They should talk to us. HCC should come to the auditorium to explain dual credit. They're not doing that. They leave it up to us if we want to take dual credit. They just give us an application but there's no encouragement. It's our choice, but they don't ask, but why, why, why? They don't ask the question, why aren't you taking dual credit? Why am I not taking it? Because I want somebody to take an interest in me! HCC needs to motivate us and give us a reason to participate because we're worth it.

Faculty Commitment

Hard work and determination resulted in a successful dual enrollment class for one High School teacher. The teacher encouraged students from the first day of school to prepare for the placement test and made it a point to explain the value of dual enrollment:

Some teachers aren't credentialed. Some are credentialed, but the word is, I'm a hustler. I've been through this and I know what you have to do. You have to get these kids to know when the test is—what they're going to take. They've got to fill out applications, and I help them. I go back and forth to HCC to drop off forms and pick them up. People bring me forms. I know exactly what's needed. They have to test in September and we need a date. I bug HCC personally, when are we going to have a date? You guys have to come out. I usually pick the date and then set things up. I know how to sell the test; when it should be, where, what time, and I do. It works! I tell these kids from the first day of school, 'we're going to have a dual credit test.' As soon as I get the date from HCC, I tell them every day for three weeks straight. I say it's really important. I think some of these teachers are involved in so many different things, too, and this dual credit is one more thing. If it doesn't happen, it doesn't happen. It's something I emphasize and put a high priority on every year when school starts to get it done. (Personal communication, November 2006)

Goal Setting

Although the program provided particular challenges, the relationship between HCC-NE and SHHS was good. Increasing enrollment in the program was a primary goal. In addition, during the course of the study, the College was monitoring retention. The two institutions recognized, however, that efforts to expand the program were not working.

My goals are pretty cut and dry; it's to increase the number of classes and increase the enrollment. I guess the stepping stones to get there have not been successful. Without the help and partnership of the High School, it's been a little difficult. I keep really good relations with the instructors but in terms of expanding, it really hasn't been very successful, yet. Any success that we've had over there has been largely due to the dedication of those instructors. They really, really try. (Personal communication, November 2006)

I set my own goals. This year I wanted to see some growth compared to last year. This year I saw the growth on test day. There was not an empty seat left. This room was packed. They all showed up and I told someone we should have some growth. Last year we had 15 or 16 dual credit, we should have over 20. I knew there were going to be some kids failing the test, but I was really surprised there were only 12 that made it.

The researcher explored the question further and determined that the College monitored program success by comparing the number of students who matriculated after dual enrollment. Since the spring 2005 term, 117 dual credit graduates enrolled at the College. Ninety-two students attended in the summer or mini terms, and 25 students enrolled full-time. (Personal Communication, November 2006)

Leadership and Administrative Support

The strength of the dual enrollment program was in the partnership; however, the study revealed a weakness in administrative and faculty support. In order for the program to work everyone needed to be on board and not everyone was. Poor marketing strategies, unqualified instructors and lack of support from counselors were just a few areas needing improvement.

The College needs to sell the program. They don't sell it. They're not doing anything that I know of, except go to one particular classroom. They look for teachers qualified to teach dual credit and then they target those students. That's it, nothing more than that. There aren't that many teachers. At one point we had two or three and that's it, and those can only teach so many AP classes. (Personal Communication, November 2006)

Maybe one thing is to start students at an early age. Very few of them, including our ninth and tenth graders, know anything about dual credit. I don't have this kind of data or information, I just say it anecdotally, but I'm sure kids never hear of dual credit until I tell them about it. It's just not pushed . . . if they knew at a younger age what it takes to participate. That's why I've said, the number one thing to do to sell it—the more the ninth and tenth graders know about what it takes. . . I don't see anyone knowing about it in ninth or tenth grade. I think the number one thing is to get these kids at a younger age to know about it. (Personal communication, November 2006)

Another member stated that communication and support from counselors were issues that needed to be addressed: “. . . its word of mouth and trying to get the counselors on board.” (Personal communication, November 2006) Through administrative support and strategic planning, more students and teachers could participate in the program. Furthermore, data could easily be gathered and compiled to identify potential students. Unfortunately, counselors would find the process too cumbersome and time-consuming.

Administration has to get the key teachers into the program, it's that simple. This campus needs to get the quality people into the quality classes. They should identify the kids and put them in their proper classes and from that point on—it's a piece of cake. For whatever reason, they're not doing it. It's a logistical problem. That's the whole thing, they don't do it. It's a hit or miss situation and it takes some planning. It's not that much; it's only five pieces. They could do it, but they don't because the counselors are going to have to hand-pick the kids. They're going to have to put in extra time to make sure that I have a class at a certain time and that it doesn't conflict. If that's the only class, will it conflict with another, you know. Give me a break! (Personal communication, November 2006)

Program Evaluation

The study revealed that the College did not survey its students to determine instructional efficacy. Asked if dually enrolled students evaluated teachers, the College faculty member responded: “. . . I guess we could try, but

getting them back would have to be from the instructors, which they would probably frown upon.” (Email communication, March 2007)

According to the High School faculty, committees were not part of the planning process. They said they were limited by a lack of teachers or other more important priorities. Following is what one High School faculty member had to say: “It’s not something that there’s been a committee on because it’s very sporadic; very few of our teachers are eligible to teach it.” (Personal communication, November 2006) Another High School faculty member said, “I haven’t had a committee- wide meeting since its inception. The first year they tried to put dual credit together I got pulled into a meeting with the principal and HCC administrators. That’s probably the only meeting I’ve ever had school-wide.” (Personal communication, November 2006) “There is no dual enrollment committee. I don’t know why, I don’t know why. The school is under-achieving. They have other problems, so dual enrollment is something that they speak about, but they don’t follow through on,” said another. (Personal communication, November 2006)

The College faculty member agreed “There is no committee, but I communicate by e-mail on a regular basis.” (Personal communication, November 2006)

Chapter Summary

Students perceived dual enrollment as a head start on college, a way to achieve their goals, a door of success, an opportunity, and a way to save time and money. Parents were cited most often as influential to their decisions but some students and faculty members indicated a lack of parental support. Siblings, extended family and at least one teacher were also motivational sources. Personal experiences including family struggles and financial hardships and a lack of parental education encouraged non-dually enrolled students to participate, or have a desire to participate in dual enrollment.

The most common areas of concern frequently mentioned by students included: lack of information, college course placement procedures, and academic unpreparedness or perceived academic un-preparedness. College and High School faculty identified additional limitations: (1) lack of College and High School collaborations, (2) competition between AP and dual enrollment, (3) TAKS priorities, (4) unclear test placement policies, (5) lack of teacher qualifications, (6) unclear policies concerning transferability of credits, (7) lack of student motivation, and (8) College and High School image.

Study participants also perceived the dual enrollment program as an opportunity to advance from high school to college. They maintained that some information was shared in the senior year, but communication was not widespread. Participants urged the College to provide information to all students

beginning in their freshman and/or sophomore years. They indicated that college representatives were not visible and suggested that brochures and written correspondence were ineffective approaches for getting out the message. Students also requested more support services such as ways to improve test performance. In addition to information on dual enrollment, they emphasized the need for face-to-face communication through outreach activities, lectures, group meetings and High School community gatherings.

Evaluation assesses program claims, satisfies accountability issues and provides guidance for program improvement, but the findings revealed a lack of program evaluation. Neither the High School nor the College monitored the impact of their services. At the High School level, dual enrollment was not enforced. Information was not disseminated school-wide due to a lack of administrative and faculty support. The primary focus was on getting students into the right classes, so dual enrollment was not a priority.

At the College level, students did not evaluate their instructors, so there was no effective means for setting goals and/or evaluating outcomes. More importantly, the general consensus among students was that the College is not doing enough to attract them to dual enrollment.

CHAPTER FIVE
SUMMARY, DISCUSSION, CONCLUSION, IMPLICATIONS AND
RECOMMENDATIONS

The purpose of the study was to explore the factors that influenced dual enrollment participation among students from Sam Houston High School. The study was initiated to better understand the influences in the dual enrollment decision process so that secondary and postsecondary educational institutions can establish effective partnerships to ensure Hispanic students are encouraged to participate.

Four research questions framed the study:

1. How do students from Sam Houston High School perceive dual enrollment?
2. How are students from Sam Houston High School encouraged to participate in dual enrollment?
3. What barriers prevent students enrolled at Sam Houston High School from participating in dual enrollment?
4. How do Houston Community College-Northeast and Sam Houston High School collaborate to attract Hispanic students to the dual enrollment program?

McGee (2004) reminds us that Hispanic college participation in Texas is crucial because the population is the fastest-growing ethnic group in the state. According to the U.S. Census Bureau (2000), the total population in Texas is 20,851,820 and 32 percent of the population is Hispanic or Latino of any race.

Can changes be made in how Sam Houston High School (SHHS) and Houston Community College-Northeast (HCC-NE) structure the existing dual enrollment program to increase participation among juniors and seniors at the High School? This chapter presents the researcher's understanding of the issues, implications for action and makes recommendations for improvements.

Summary of Findings

The study yielded several important pieces of information about why students choose or choose not to participate in the dual enrollment program at HCC-NE. The results indicated the following:

Perceptions of Dual Enrollment

- Dual enrollment is a head start on college, a way to save time and money; it lessens the time to get a degree.
- Dual enrollment is less valued than Advanced Placement.
- Dual enrollment courses do not transfer to four-year institutions.

Influential Factors for Dual Enrollment Participation

- Encouragement from parents and family members and a teacher.
- Incentives such as extra credit points motivate and encourage students to take the college course placement test.
- Dual enrollment is free.
- Dedicated High School dual enrollment teacher

Barriers to Participation

- The college course placement test schedule is inconvenient for students.
- The college course placement test is not administered in a controlled environment. Students are subjected to distractions from the High School environment such as noise, bells ringing, announcements, etc. Test administrators are unprepared, and testing facilities are crowded.
- The college course placement test is a one-time opportunity. Students are not retested.
- Students are eligible for College reading and or writing courses, but High School teachers lack the credentials to teach dual enrollment.
- College professors do not teach dual enrollment at the High School.
- Lack of High School administrative support.
- Dual enrollment competes with TAKS priorities.

- College course placement policies are ambiguous.
- Students did not achieve passing standards on the college placement test for math.
- Parents, teachers and counselors lack awareness of the dual enrollment program.
- Non-existent committees to establish program goals, monitor progress, and or evaluate measurable outcomes.
- Lack of information and unclear linkages between the High School and the College.
- Academically unacceptable High School performance ratings.

College and High School Collaboration

- College representatives attend PTSA meetings to inform students of the dual enrollment program.
- College representatives set up informational booths in the cafeteria.
- Strong working relationships between the dual enrollment teachers and the College dual enrollment liaison.
- Academic and technical courses offered.
- The College waives tuition costs.
- The High School provides text books.

- Both the College and the High School receive the average daily rate for dually enrolled students.

The study revealed that dual enrollment participation declined in fall 2006 compared to fall 2005. Student and institutional factors were the reasons for the decline including: (1) a lack of communication and available information, (2) a lack of teachers available to teach dual enrollment, (3) a lack of students passing the college course placement test, (4) inconvenient test schedule, and (5) lack of administrative support.

Non-dual enrollment participants had the same desire as dually enrolled students to participate in dual enrollment and consequently attend college. In most cases parents or family members were the primary source of influence to participate in the program.

Study participants know first hand what it takes to overcome the barriers. They offered suggestions for how to get more students involved in the program and strongly expressed a need for assistance and information from the College. They said the College should send student ambassadors to discuss the value of dual enrollment and share their experiences with them and their families. Likewise, one faculty member advocated sharing success stories. He said messages told by example were effective strategies for attaining participation. Many doors will open if students prepare themselves academically, but they must also do their part in seeking out opportunities to ensure a prosperous future.

Out of a student body of 882 juniors and seniors classified as regular students (PEIMS EDIT + REPORTS DATA REVIEW, Students by Sex, Ethnicity and Grade, 2006-2007 Fall Collection, Resubmission, 2007), there were 47 students enrolled in dual enrollment courses at Sam Houston High School (HCC Comparative Enrollment Report, fall 2006). Notwithstanding, a report from *HISD Connect: HISD Students Pass Record Number of Advanced Placement Exams* (2006) illustrates a record number of students in HISD participating in AP. In fact, the report indicates a 77 percent increase for SHHS in 2006, up from the year 2001. Also, the *Research Report on an Educational Program* (Houston Independent School District, 2005-2006) indicates that 259 SHHS students participated in AP the 2006 school year. More students are participating in AP than dual credit, however, “these data suggest that although there are students enrolling in AP courses, all are not taking the examinations” (p. 17), which opens the door even wider for dual enrollment.

Discussion of Findings

The Teacher Education Agency rated SHHS academically unacceptable for the past three years. As a result, the School is fighting the image of a poor performing school. It is a dilemma that causes students to think they are not going to succeed. Although parents influence their children to participate in dual enrollment, most are not involved in their child’s educational activities.

The study supports the data from the Education Commission of the States (2001) as reflected in Chapter Two. Dual enrollment saves time and money and increases student aspirations. At SHHS, students are encouraged by the fact that the courses are free and the time to get a degree is reduced. The College waives the tuition and the High School provides the textbooks. Although these perks can potentially motivate students to make informed decisions about participating, the admission process is time-consuming, complex and intimidating. Most of the students need help to complete the application. Aside from that, students are confident that participation in dual enrollment helps ease the transition to college and can eventually improve their lives.

The National Center for Education Statistics, Institute of Education Sciences (2003) is concerned about the current generation of students who want to attend college but is not ready for college-level work. A few of these examples were found at SHHS. For instance, after taking the college placement test, 12 out of 45 students qualified for college-level math. Although the findings were consistent with NCES, these students did not lack a desire or vision to participate. Non-dually enrolled students expressed the same drive and interest as dually enrolled students but for one reason or another were unable to participate. For example, out of 45 students who tested, 21 passed the reading and writing sections, 25 passed reading, and six students demonstrated readiness for college writing (Personal communication, 2007). Despite their qualifications, the College

did not enroll these students. The study also revealed that these students were not aware that indeed, they could have participated in dual enrollment. As well, the study exposed another contradiction. In some cases, professional discretion is applied and students are accepted in college-level courses if they fail to achieve cut-off test scores but fall within a specified tolerance level. In contrast, the College does not apply the same policy for SHHS students.

Other findings were that parents and family members were influential sources. The study determined that teachers, too, could potentially impact students' decisions to participate in dual enrollment but that a lack of information dissuaded them from any involvement. In addition, a major threat to the program was the lack of High School teacher credentials to teach dual enrollment classes.

Lack of Information

Consistent with Bunch and Barrax (1993) the study determined that students often receive no information on dual enrollment. Each year College officials visit the High School to provide information but communications do not reach everyone. Study participants quickly pointed to a lack of information as the primary reason for low participation rates. Of the 20 seniors interviewed, none reported knowing anything about dual enrollment in their junior year. Hence, the data showed that none of the seniors interviewed were dually enrolled during their

junior year. Although dual enrollment is an opportunity for juniors, teachers did not offer them that option.

The study implies that most students do not receive information about dual enrollment until their senior year. Not only must information be provided early, it should be provided by those who influence them the most—family members, parents and teachers. Given that family and teachers are influential in the decisions students make, the information needs to come from them. Needless to say, if these parties do not realize the opportunity of dual enrollment, student participation is unlikely.

The data collected overwhelmingly suggest that more students will participate in dual enrollment if key people are knowledgeable and can assist students with the application process. Students want information about dual enrollment early and they expect parents, counselors, teachers and all students—not just advanced placement students, to receive the same information. It is crucial that parents are knowledgeable about dual enrollment so they can support their children when the opportunity arises. Only then will parents understand the benefits of dual enrollment, that it is free, and that their child can earn college and high school credit simultaneously. Once this information is provided, parents and teachers will be proud of their children and become more influential in their decisions.

SHHS needs to be reoriented to dual enrollment because the program can equip students with the knowledge and skills to help them prepare for college-level work. As a priority, face-to-face communication where all faculty, parents, and students receive the same information is essential. Students want orientation programs where specific details such as benefits, opportunities and requirements are provided. Parents and students need to know what it takes to succeed in the current economy and the skills that are required for college as well as the world of work. Materials such as fact sheets about state and local policies, fliers, PowerPoint presentations, general college admission information and college course placement requirements are also helpful.

Program structure such as admissions, registration, job placement, career services, testing and assessment, advising, and other support services should be similarly provided as with other college students. Accordingly, it is essential that students maintain strong connections with College and High School officials when dual enrollment is offered at the High School and not the College campus. On-site services are essential because many of these students are unable to get to the College campus.

A healthy leadership environment and inclusion of students, counselors, faculty, parents and administrators in the planning process will help minimize problems and also reinforce support of dual enrollment. A well-informed faculty will view dual enrollment as an excellent opportunity for students and themselves.

They will prepare their students for successful achievement of college-level work and reap the benefits of producing successful citizens of society. Equally important is the potential of college faculty identifying prospective students at the High School.

Bailey, Hughes and Karp (2003) suggest that dual enrollment opportunities ought to be extended to all students. The authors argue that dual enrollment programs can be especially beneficial for regular students because they promote college awareness. Results of the study appear to correspond with their assessment. In fact, SHHS students were convinced that the High School and the College did not give enough attention to all students. What came through clearly is that the AP students generally received information about dual enrollment, while the non-AP students, referred to as “regular students” were excluded from the information pipeline. The majority of juniors and seniors at the High School were not encouraged to participate, they said, and the system simply passes them over.

Another article in Chapter Two related to this topic is from Black Issues in Education (2004). The editorial suggests that community colleges need to reach out to a broader range of students and also stated that states need to work harder at linking high schools and colleges so that more students take advantage of dual enrollment. Study participants repeatedly seemed to agree.

Academic Un-preparedness

Students who passed the TAKS were exempt from taking the college placement test, with one exception. All students were required to take the math portion of the college placement test despite having passed the subject on the TAKS. This explains why more students qualified for reading and writing than math. Some students failed to meet the minimum cut off scores by just one point. This minor infraction prohibited several students from participating in the program.

Fear was a major reason why SHHS students failed to take the college placement test, according to the College faculty member interviewed. He said that students intended to take the test, but often failed to show up the day of the test. To validate this claim, the researcher requested a list of “no-shows” but this information was not available. Nevertheless, data pertaining to prospective students and student intake would be very helpful for follow-up and encouragement in the program. The findings revealed that all but two of the students interviewed took the college placement exam. One cosmetology student did not take the college placement test because she had not passed the state exit exam (TAKS). The other student was enrolled in an automotive class. The student thought the College placement test was for math only and chose not to take it. The student did not realize the variety of classes that could be made available to her if she had taken the test for English or reading.

Although students expressed a sense of anxiety about the placement test, fear was not a predominant factor preventing them from taking the test. Rather, interviewees stated the testing schedule was inconvenient and identified other reasons why they considered not taking the test. They identified obstacles in the schedules that were set up for them. Lack of transportation and safety issues were two of them. Other students had after school jobs or other personal responsibilities they needed to attend to. Still, others were turned off by the lack of coordination among testing coordinators.

Students want options. One faculty member pointed out that more students tested in the 2005-2006 school year when the test schedule was changed from 5:00 o'clock p.m. to 3:00 o'clock p.m. The stigma of students fearing the test may diminish when the College and High School start listening to students and begin addressing their issues to meet their needs. Indeed, Roueche and Roueche (2000) say, "institutions that survive will be those that provide the best opportunities for student success" (p. 19). Activities essential to student success such as appropriate testing procedures should be implemented, monitored and validated for the sole benefit of students.

Ideally, the High School should implement student and staff development programs that support dual enrollment. Activities should motivate and provide the services needed to bring the program to fruition. There is no reason for the testing environment at the High School to be less than adequate as for students

taking the placement test at the College. SHHS students need a welcoming environment, appropriate space and seating arrangements for testing and should be given the maximum amount of time to test. Students should be exposed to technological advances such as computerized testing to encourage student success. Pre-testing and or special orientation sessions will help students understand and prepare to meet Texas Success Initiatives, which can result in successful participation in dual enrollment.

Decisions about whether or not to participate in dual enrollment affect all students, but many of the students from SHHS need nurturing and guidance. The study revealed that dual enrollment participants were more independent than non-dually enrolled students, and thus more academically prepared. Proper coaching at least in the freshman year can result in academic preparedness. Roussel (2007), former White House Spokesman, Author, TV Commentator, Public Speaker reminds us that “prior preparation prevents poor performance.” In other words, educators should put into practice the five P’s as essential elements for student success.

Teacher credentials

A report titled, *The Lost Opportunity of Senior Year: Finding a Better Way* (National Commission on the High School Senior Year, January, 2001) suggests that all students deserve to be taught by qualified teachers. Despite concerns

about student success, many teachers teach out of their disciplines, especially in rural and urban areas. The summary further suggests that “between 18 and 28 percent of teachers in core academic areas do not have the equivalent of a college minor in those areas...high school teachers have little time or opportunity to keep abreast of new knowledge or to interact with their colleagues” (p.9). The study confirmed their point. Teachers at SHHS lacked the credentials to teach dual enrollment and had little time to devote to it. On the other hand, more teachers were certified to teach advanced placement courses, however.

The College should hire dual enrollment instructors from the College faculty pool first and second from the High School, according to *Chapter 4, Rules applying to all public institutions of higher education in Texas, subchapter 4 d, dual credit partnerships between secondary schools and Texas public colleges* (Texas Higher Education Coordinating Board, n.d.). Unfortunately, during the course of the study, students were not offered dual enrollment in some cases because of a lack of qualified teachers. This is a situation that should be seriously considered and certainly addressed. A dual enrollment program without qualified teachers cannot exist, and as a result students will suffer.

Evidence supports Andrews’ (Fall 2000) claim that implementing a dual enrollment program is a sensitive matter, one that should be handled very carefully. Study participants confirmed that establishing a dual enrollment program is harder to do, that it’s insurmountable. One person described it as

faculty lowering their egos and being willing to work with each other. On the one hand, High School faculty becomes offended that they're not qualified to teach college-level courses, and on the other, the College faculty wants to be in charge of the classroom. The match must be a good one or else the program will fail. This is just one example that explains why the College prefers to have the high school teachers teach dual enrollment.

Peterson et al (2001) indicated that the selection of instructors was an important piece to the dual enrollment puzzle. Using Salt Lake City community college as an example, the scholars suggested that rewarding good instructors was essential for a successful program. Students in the study often praised one specific teacher. The study revealed, however, that this particular teacher was not recognized for excellence in service. According to the literature review, high school instructors should receive the same recognition, support and respect as College faculty on the College campus.

Collaboration and Program Evaluation

Chapter Two discusses the value of partnerships between secondary and postsecondary institutions. According to Blair (1999) collaborations are essential for positive outcomes. Although distinct institutions, the partnership between HCC-NE and SHHS is positive. Dual enrollment officials on both sides were complimentary of each other. They share e-mails on a regular basis but physical

contact is generally limited to dropping and picking up forms. Study participants spoke openly about improving dual enrollment, but one counselor was more critical of the partnership, indicating a need for image improvement.

Although administrative approval is granted, the lack of program support at the High School makes things difficult. For example, dual enrollment teachers assemble all the necessary documents and are responsible for setting up tests and so forth. They do it all. Counselors, on the other hand, appear to be overloaded with paperwork, class schedules, and transient students. Unfortunately, any involvement with dual enrollment is minimal. Last year, the counselor allowed a College official to review all the TAKS scores to identify prospective students, those with high probability of passing the college placement test. The High School and the College saw high possibilities with the process, but the process was discontinued when the counselor left the school.

No one sets roadblocks, but a dual enrollment program without administrative support is doomed to fail. The stepping stones to get started have not been without the help and partnership of a couple of teachers and the College liaison. High School and College officials are open to new ideas, but the two institutions must collaborate from the top down in order for this to work.

Evaluating dual enrollment is an issue that merits attention. The literature review suggests that educational institutions should conduct program evaluations regularly to determine success and quality of their dual enrollment program.

Secondary and postsecondary institutions need to know if dual enrollment is working for them. Moreover, some states conduct program reviews of their dual enrollment programs but Missouri is the only state that is required to submit evidence of compliance.

HCC-NE and SHHS do not conduct program reviews nor does the state require evidence of program compliance. Without a strategic plan and program review, institutional officials are unable to see the whole picture.

The American Association of State Colleges and Universities (2002) also cited in Chapter Two of this document, suggests that a dual enrollment program is effective if it provides courses that are not available at the high school. Program efficacy at HCC-NE is the result of academic and technical courses offered at the High School. Moreover, Armstrong (n.d.), a leader of educational issues presents his point of view. He maintains a program is deemed effective when students matriculate after graduation. The researcher was able to ascertain that the College monitors the number of students matriculating after high school graduation, but the numbers were not substantial. In fact, one College participant said that the College covered testing fees, faculty salaries, supplies and expenses, but student retention rates were not sufficient. The faculty member explained, “I understand that to a certain extent because this program is not bringing in any money, the kids that actually take the classes generally are going on to another university. For whatever reason, they’re not coming here. We pay their tuition and their testing

fees, which none of the other colleges do. We rarely make them buy textbooks.

(Personal communication, November 2006)

Both the College and the High School gauged their success by the number of students enrolled in the program. Oburn (2005), however, recommends replacing traditional methods of accountability with newer systems that are “focused on educational outcomes” (p. 19). In addition, some states are tying funding to performance, which should encourage postsecondary institutions like HCC-NE to more aggressively consider dual enrollment in their strategic plans.

The High School faculty wants to better understand changes in program requirements and deserves a full explanation of college course placement policies and procedures. Too many students fail to pass the state proficiency exam and as a result are required to take the college placement test. Despite successfully accomplishing one of the first hurdles to the College admission process, passing the college placement exam is no guarantee of getting into dual enrollment. Students easily encounter different problems to participation. Reading or writing courses, for example, are not offered because High School teachers are not qualified to teach college-level courses.

Practical Implications

Many of the students from SHHS have parents with little or no postsecondary experience. These students must make decisions about whether or

not to participate in dual enrollment. They will need assistance with the admission process and they will be required to demonstrate college readiness. They must be prepared. Students will participate in dual enrollment if the appropriate bridges are created. By focusing on the needs of students, a successful dual enrollment program can emerge and more students will become motivated to participate.

Statistically, Hispanic youth are the fastest-growing segment of the U.S. population, with a little over 25 percent already working. The benefits of dual enrollment and closing the educational gaps between Hispanics and other ethnic groups are unmatched. Enabling students to participate can have a profound impact on personal income and thus a successful U.S. tax base (Sorenson et al, 1995).

The state of Texas depends on an educated society and an advanced workforce, and dual enrollment is an excellent way for HCC-NE and SHHS to help support the state's closing the gaps initiative. The state's economy is promising, but the goals of closing the gaps to college participation, especially among Hispanics are not being achieved. One does not expect that every student from SHHS will be responsive, nor will every student attend HCC-NE, but dual enrollment can help encourage and motivate Hispanic students to improve their lives and at the same time ease the transition from high school to college.

As previously noted, establishing a dual enrollment program is a sensitive matter. Not all secondary school teachers, for example, will support dual enrollment. Some will fear losing good students in advance placement classes, others will not have the credentials to teach dual enrollment. College faculty, on the other hand, may fear relinquishing control when classes are taught at the High School campus, but with appropriate communication strategies, these fears can be eliminated. These are just a few issues that should be jointly addressed.

Effective leadership will help identify strengths, weaknesses, opportunities and threats, and through partnerships can work to ensure program efficacy. High school faculty will recognize many new benefits. Preparing their students to become college-level students is something they can be proud of. They will be proud when their students successfully navigate through the program. On the other hand, College faculty will welcome new students who successfully achieved college-level work and are academically prepared as a result of dual enrollment. Parents and family members were found to be influential, so it is important to keep them abreast of the program so they, too, can understand, promote and support dual enrollment.

One of the teachers interviewed shared success stories with his students to encourage them to participate in dual enrollment. An example is as follows: A former dual enrollment student from SHHS was accepted into the University of Texas at Austin. The student had completed college credit hours through the dual

enrollment program. The student sent a message to her former teacher expressing how happy she was that she had been accepted to the University. The student was elated about not having to re-enroll in a course she had successfully completed through the dual enrollment program. The student said dual credit was the best decision she ever made in high school. Furthermore, now that she was in college, time and money were more important. Not only had she satisfied the math requirements, she also saved time and a lot of money.

Support services should be provided to dually enrolled students just as with any other student on the College campus. Practice tests for the college placement test should be provided to ease any fear or anxiety about the unknown. Not all students will be motivated to take the test, but practice tests can help them understand that quality work performed in their lower high school years can lead to better grades and consequently, dual enrollment.

Maintaining the lines of communication open with students, parents and high school officials cannot be overemphasized. Of immediate concern is the need to articulate more information about dual enrollment and how students can prepare for it. The senior year may be too late to reverse the damage for low academic performers and also students who choose not to participate in dual enrollment, but the data suggest that more students would be better prepared to participate if appropriate information were provided. The freshman and

sophomore years are a particularly good time for campus leaders to introduce dual enrollment. One student said it best:

We're busy with so many things in the freshman year and in the sophomore year we're still not serious. By the junior year we've already ruined our record so we think...what's the use? HCC needs to start talking to us about college and the dual credit program in the freshman year. Even though we may not be paying attention—if they do it often enough, we will eventually listen.” (Personal Communication October 2006)

Conclusion

This study set out to examine the factors influencing dual enrollment participation at SHHS. Using data collected from in-depth and focus group interviews, the data show that dual enrollment participation at SHHS is decreasing and therefore is not contributing to the state's closing the gaps initiative.

The College provides opportunities for juniors and seniors to earn dual credit while in high school, however, the concern is what to do to further close dual enrollment participation gaps at a high school that consistently reflects low performance standards. Much emphasis is placed on ensuring that students pass the state assessment exam. Similar efforts need to be made to recruit more qualified teachers and to ensure that students, parents, counselors and teachers receive information as early as the student's freshman year of high school.

Students need to be academically ready for the college placement test. Equally important, students must be encouraged to take the test.

Much of the data indicate there is still much more work that needs to be done to strengthen the dual enrollment program at HCCS-NE and SHHS. The program is a great opportunity for High School students to experience the rigors of college-level work. High School and College officials, however, must work in unison to address the challenges. Specifically, decision-makers need to determine how they can structure dual enrollment to ensure access to more Hispanic students. They must ensure a sufficient number of teachers are available to teach needed courses and ensure program goals are established and outcomes addressed.

Analysis of the causes for minimal participation leads one to conclude that we are doing more things wrong than right at SHHS. Students want improvements. As well, a lack of administrative support hurts everyone. The largest share of students at SHHS is Hispanic and their needs are not being met. Their future depends on whether or not HCC-NE and SHHS are willing to open the doors of access so more students can participate. They are our responsibility and so, we must be responsive to their needs.

It is evident that SHHS students are not taking advantage of dual enrollment opportunities. We need to identify their needs and get them where they need to be. More research is needed to address access to the program. A

minute number of students are taking advantage of dual enrollment, yet this benefit remains the best kept secret at SHHS. Many Hispanic students are excluded from participation. Continuous identification of barriers is needed, but more importantly those barriers must be eliminated.

In spite of all the encouragement received from one teacher, focus group participants said teachers encouraged them to attend a four-year institution. Students want to know why they were encouraged to attend a university rather than a community college. According to Noel-Levitz (2002), “If the image of the institution is positive, it is easier to enroll students” (p. 31). By a show of hands all students in Focus Group One said they planned to attend a four-year institution, but said:

Teachers encourage us to go to the university, but a teacher I know says that community colleges are not altogether better than U of H or a university, something like that. If it offers the same thing at a cheaper price, and in your neighborhood, isn't it better? It's not just HCC. There are other community colleges that are better and stuff, so I think it's just what you feel the most comfortable with. That's what I feel. It's my decision. I get the credit; I should be able to take it where ever I want. (Personal communication, October 2006)

Additionally, the cosmetology student in Focus Group Two indicated she would attend Houston Community College after graduation, but the general

consensus among Focus Group Two students was similar to those in Focus Group

One:

Why is it that some teachers frown upon HCC and community colleges? Is it because they have high expectations of us, or aren't they as good as other universities? What is your feeling? Teachers say, 'Oh, don't go to HCC, or a community college. Go to U of H or go to UT.' What is the difference? (Personal communication, October 2006)

Exploring the implications of these questions is beyond this research, but if the two institutions are serious about closing college participation gaps, the recommendations provided in the foregoing section are certainly worth looking into.

Recommendations

The report, *Preparing for the emerging Texas: Report on the effectiveness and efficiency of state financial aid programs to help close the gaps in participation and success* (Texas Higher Education Coordinating Board, 2004)

addresses the need to nurture students' desires to participate in higher education.

The study substantiates claims that students must be informed why dual enrollment is important and what they can do to become a part of it. They need to believe that higher education is possible and because many of these students are

first generation, they will miss out on important opportunities if the appropriate support is not provided.

The following recommendations are based on the research and direct observation of campus practices. The researcher recognizes that some of the strategies may have already been implemented or are being discussed, and others have been suggested in the literature.

HCC-NE and SHHS need to push hard to get students to participate in dual enrollment. The study confirmed that visiting the High School can potentially increase the likelihood that a student will participate in dual enrollment. Hence, it is important to focus a significant portion of the College's recruiting efforts on getting to students at the campus (Noel-Levitz, April 2002). Furthermore, the study suggests that parents and family members are significant influences in the dual enrollment decision process. Therefore, family-friendly outreach programs can impress siblings who are future prospects.

There is no easy solution to the problem of dual enrollment participation at SHHS. However, the following additional recommendations are offered as a starting point:

- HCC-NE and SHHS should monitor students from the point of intake, progress and outcome.
- Just offering dual enrollment will not solve the problem. Students must be encouraged to participate.

- HCC-NE and SHHS should talk to students and parents in early grades about dual enrollment.
- HCC-NE should offer practice college placement exams in the freshman and sophomore years.
- HCC-NE and SHHS should provide materials written in English and Spanish and present them in simple language and up-to-date information.
- Include a link to the dual enrollment liaison of the College on the HCC website.
- Advertise the College's dual enrollment program at the High School, in the counselor's office, school newsletters and publications.
- Raise public awareness about dual enrollment. Publicize it to teachers, counselors, parents, the board of trustees, and school administrators. Send regular mailers to parents.
- HCC-NE should conduct dual enrollment workshops for faculty and staff at the High School or regional service centers.
- HCC-NE should allow High School teachers to decide which students should participate in dual enrollment using professional judgment and acceptable test scores.
- HCC-NE should establish and implement a dedicated funding source for the dual enrollment program.

- HCC-NE should designate a public relations coordinator to provide outreach services and ensure students and teachers get the message about dual enrollment.
- HCC-NE and SHHS should develop a First Generation College Student Initiative program so more students will learn about dual enrollment.
- Prepare junior-year students who fall short of placement scores for dual enrollment in their senior year.
- Allow students to re-take the college placement test so they have another chance to participate in dual enrollment.
- HCC-NE should use the state's comprehensive training system to provide training to High School faculty about the Texas Success Initiative requirements.
- Make testing available before the end of the school year so students can be ready and prepared before the start of the next school year.
- Combine low enrollment classes on campus with low enrollment classes at the High School and make transportation arrangements for High School participants.
- Provide more test schedule options for students.
- Set dual enrollment goals based on the state's goals for closing participation gaps.

- Establish a standing committee responsible for setting recruitment and retention goals, and overseeing and evaluating the dual enrollment program.
- Ensure that support services are available to all dually enrolled students, including advising.
- HCC-NE and SHHS should recognize and reward dual enrollment faculty and students for their accomplishments.
- HCC-NE should expand recruitment efforts by establishing stronger relationships with High School counselors, faculty and students.
- The High School should ensure a stronger top-level administrative commitment for dual enrollment.
- HCC-NE and SHHS should develop strategies to identify, motivate and hire qualified High School teachers to teach dual enrollment.
- Ensure eligible students are able to participate in dual enrollment by assigning College faculty to teach courses that cannot be taught by the High School faculty.
- Send financial aid representatives to the High School before the school year ends to encourage seniors to apply for the Texas Grant as well as other financial aid opportunities.

Additional steps are important in addressing the needs of students and the gaps in services provided. Before adding new policies, an audit of the current

policies is needed. The audit serves to review existing policies, especially those that have been questioned, for example, testing requirements, and to remove barriers that impede success. The audit should include interviews with knowledgeable people who can provide feedback based on their experience with the program. Some policies require more attention than others, but use of information, leadership, finance, regulations, and accountability are the basic ones to address (McGuinness, et al, 2003).

Recommendations for Further Research

The study evaluated college-bound students' reasons for participating or not participating in dual enrollment. As such, we have no knowledge of reasons why non-college bound students fail to participate. Further examination of other factors associated with dual enrollment participation is necessary to further explain influences to participation. This study was not as extensive as it should have been. Non college-bound students should have been included in the study and data used for a more exhaustive research project. More research should be done in order to improve and expand the dual enrollment program at Sam Houston High School.

APPENDIX A

Letter of Consent

Dear Study Participant,

I am a student at the University of Texas at Austin and am working on my dissertation. I am asking if you would participate in my dissertation study.

The purpose of my study is to understand why more students from Sam Houston High School do not participate in dual enrollment and to identify factors that influence student participation.

Your participation is important. It will include one interview as a group, and if selected, may include one individual interview. Interviews will last approximately one hour. All interviews will be tape-recorded and later transcribed for publication. The main focus of our discussions is dual enrollment.

Your identity will be protected and even though I may quote you, I will ensure that your name is not used anywhere in my study. Data collected will be stored in a safe place to ensure confidentiality of information. In addition, I would like you to know that you may withdraw from my study at anytime, at your own discretion.

Thank you so much for your support. Please let me know if you have any questions. I can be reached at 713-718-8065.

Kindest regards,

Oralia Green
Doctoral Candidate
The University of Texas at
Austin

I have read the above information and agree to participate in the study.

_____ (Participant's signature)

_____ (Date)

APPENDIX B

Introductory Remarks

Hello and welcome. My name is Oralia Green and I will be the moderator for today's focus group. This focus group is being conducted as part of an overall study of my dissertation at the University of Texas at Austin. The study, *Closing Participation Gaps: Exploring Factors Influencing Hispanic Students' Participation in a Dual Enrollment Program*, explores the reasons why Hispanic students choose or choose not to participate in a dual enrollment program at Houston Community College-Northeast.

You are selected to participate in my study because you are currently participating in the HCC-NE dual enrollment program, or you have chosen not to participate. I would like to better understand why some students choose to participate and why some students choose not to participate in dual enrollment. What are the reasons why more students from Sam Houston High School don't participate in dual enrollment? How can dual enrollment serve more students?

First, thank you for taking the time to come here today. Before we begin, I want to cover some ground rules.

In order to ensure that there are no interruptions, please turn off your cell phones. You have been asked here to share your opinions, attitudes, beliefs and feelings. Everyone's comments are important and should be expressed. There is

no right or wrong answer and it is okay to disagree. However, I ask that you be considerate of each other.

The focus group process is a method for collecting information where questions are posed to the whole group and everyone is asked to respond. I do want to emphasize that our discussions are audio taped to ensure that I have an accurate portrayal of what is being said. Although I will refer to you by name during the discussion, your confidentiality is ensured. Your name will be removed from all transcripts of today's conversation and you will not be identified by name in any of my reports or documents. Additionally, I ask that you respect your fellow participants and keep your conversation today confidential.

It is important that everyone in the group participates and gives their honest opinions. I am here to help guide the discussion and ensure that everyone participates. Once again, there is no right or wrong answer to the questions that I ask. Our session will last approximately one hour.

If you feel uncomfortable with any part of the study, you may decline to participate and you will not be penalized. You may also leave our conversation at any time.

For the next several minutes I am going to ask questions about your participation in dual enrollment.

APPENDIX C

Focus Group Interview Guide: Juniors and Seniors Participating in Dual Enrollment

1. Tell me why you decided to participate in the dual enrollment program that HCC-NE offers.
2. What was your perception of the dual enrollment program before you enrolled in it? What do you think about it now?
3. What challenges did you face when making the decision to participate in the dual enrollment program? How did you deal with them?
4. How did your family and friends influence and encourage your decision to participate in dual enrollment?
5. What specific challenges are you facing now that you're in the dual enrollment program? How are you dealing with them?
6. What did your teachers, counselor and college representatives do to encourage you to pursue dual enrollment?
7. A high percentage of Hispanic students from Sam Houston High School do not participate in the dual enrollment program. What do you think are the reasons they do not participate?
8. How did you learn about HCC's dual enrollment program? What was your first impression? What motivated you to participate?
9. What can HCC-NE and Sam Houston High School educators do to encourage more Hispanics to participate in the dual enrollment program?
10. How can the dual enrollment program be improved? What needs to be done?

APPENDIX D

Focus Group Interview Guide: Juniors and Seniors Interested in College, Not Participating in Dual Enrollment

1. Have you ever applied for dual credit/enrollment? If no, would you be interested in applying? Why not? If yes, what happened?
2. How do you feel about students who take college courses while still in high school? How do you think they manage it?
3. What obstacles, if any, prevent you from participating in dual enrollment?
4. If you considered dual enrollment, how much influence did your family and friends have in your decision to participate or not participate in the dual enrollment program? If you have not considered dual enrollment, how much influence would your family and friends have in your decision to participate or not participate in dual enrollment?
5. How did you feel when you were told that you could not take dual credit/enrollment classes? How was dual credit/enrollment important to you? How was the information explained to you? What other options were you given?
6. A high percentage of Hispanic students from Sam Houston High School are not participating in dual enrollment. What do you think are the reasons they don't participate?
7. What can HCC-NE and Sam Houston High School do to encourage more Hispanic students to participate in dual enrollment?
8. What are your hopes and dreams for the future? How will you accomplish them? What are your plans after high school?
9. What is your idea of success? What or who encourages you to succeed? What do you think about role models? Who are your role models or mentors?
10. What support services do you need to help you succeed?

APPENDIX E

In-depth Interview Guide: High School Teachers and Counselor

1. What type of dual enrollment program is in place at Sam Houston High School? What success have you had with it? How do you measure success in the program?
2. What are the high school's requirements for participating in dual enrollment?
3. What are the reasons behind the fundamental choices students make when they choose to participate or not participate in dual enrollment? What constraints limit them?
4. How are Hispanic students challenged or encouraged to participate in the dual enrollment program?
5. What is being done to improve dual enrollment participation rates among Hispanics at Sam Houston High School?
6. Describe how Sam Houston High School and HCC-NE interact to achieve dual enrollment goals for Hispanics?
7. How can the dual enrollment program be more effective and efficient in promoting Hispanic student participation?
8. Describe your most effective promotional strategies for the dual enrollment program.
9. How do you determine dual enrollment goals for Hispanic students at Sam Houston High School?
10. What is the composition of the dual enrollment committee? How often does the committee meet?

APPENDIX F

In-depth Interview Guide: Dual Credit Liaison

1. What programs does HCC-NE currently have for promoting successful participation of Hispanic students in dual enrollment? How can this program be improved?
2. How is the Sam Houston High School dual enrollment program organized??
3. What internal or external environmental factors are positively or negatively impacting the dual enrollment program at Sam Houston High School?
4. What have been your most successful dual enrollment strategies for Sam Houston High School? How do you encourage Sam Houston High School students to participate in dual enrollment?
5. What are your most effective promotional strategies for Hispanic student participation in dual enrollment at Sam Houston High School?
6. How frequently does HCC-NE communicate with prospective Sam Houston High School students at the inquiry and application stage about dual enrollment? How is information communicated?
7. How does HCC-NE increase college participation among Sam Houston High School students who are not initially labeled college material?
8. What is HCC-NE doing to close participation gaps among Hispanic students from Sam Houston High School? How does HCC-NE recruit Hispanic students into dual enrollment?
9. How do you determine dual enrollment goals for Sam Houston High School? How do HCC-NE and Sam Houston High School interact to achieve dual enrollment goals?
10. What is the composition of the dual enrollment committee? How often does the committee meet?

GLOSSARY

The following words and terms are defined according to how they will be used in the study.

Closing the College Participation Gap Study: The *Closing the College*

Participation Gap Study is an initiative of the Education Commission of the States Center for Community College Policy. Its purpose is to help policymakers and state leaders expand opportunities for postsecondary access, and increase participation especially among underserved and disadvantaged populations (ECS 2003).

College: Public two-year associate degree-granting institutions as well as most forms of education and training beyond high school. The terms “postsecondary education” and “higher education” mean the same thing (Rules Applying to All Public Institutions of Higher Education in Texas. Subchapter D, Dual Credit Partnerships between Secondary Schools and Texas Public Colleges).

College Participant: A person residing in the United States who attends a public or private degree-granting college or university (ECS 2003).

Community College: McGuinness and Jones (2003) describe community colleges as educational institutions that support high school students enrolled in dual enrollment programs, high school graduates, adults, and employers. Community colleges offer early intervention programs for public school youth, and offer

remedial and developmental education, adult basic education, and other specialized services.

Dual Credit: Students receive both high school and college credit for a college-level class successfully completed (Andrews 2004, p. 416).

Dual Enrollment: Students are concurrently enrolled and taking classes in high school and college (Andrews 2004, p. 416).

Participation Gap: The total number of additional college students the U.S. would need to enroll, based on demographic projections, if it were to match participation rates of the best-performing states. Enrollment goals can also be set through comparison of peer states, the national average, or by raising the bar in enrollment numbers (ECS 2003).

Participation Rate: Ruppert (2003) defines participation rate as the key indicator used for higher education. Understanding why some states perform better than others is a complex process. The author suggests that academic achievement, aspirations, access and affordability may be factors influencing the participation rate in some states. The challenge the nation faces is to accommodate a greater number of students, and also to increase the proportion of the population that attends college.

BIBLIOGRAPHY

- American Association of State Colleges and Universities (2002). The Open Door: Assessing the promise and problems of dual enrollment. State Policy Briefing, Vol. 1. (1)
- Andrews, H. A. (2000). The dual credit explosion in Illinois community colleges. *Research Brief*, 2-5.
- Andrews, H.A. (Fall 2000). Lessons learned from current state and national dual credit programs. *New Directions for Community Colleges*, 111. Jossey-Bass, a Wiley company.
- Andrews, H. A. (2004). Dual credit research outcomes for students. *Community College Journal of Research and Practice*, 28, 415-422.
- Andrews, H., & Davis, J. (2003). When high school is not enough. *American School Board Journal* (p. 38).
- Apodaca, E.C. (2003). Texas Higher Education, Hispanic report card. *Texas Community College (Report Card Data)*. Retrieved February 9, 2006, from file://E:\TEXAS COMMUNITY COLLEGE (Report CARD DATA).htm
- Armstrong, D. (n.d.). Who's coming to college? Division of Community College and Workforce Education.
- Babbie, E.R. (1995). *The practice of social research*. Belmont, CA: Wadsworth Publishing.

- Bailey, T. R., Hughes, K. L., & Karp, M.M., (2002). What role can dual enrollment programs play in easing the transition between high school and postsecondary education? *Community College Research Center and Institute on Education and the Economy Teachers College/Columbia University*. Retrieved December 16, 2005, from <http://www.ed.gov/about/offices/list/ovae/pi/hs/bailey.doc>
- Bailey, T. R., Hughes, K. L., & Karp, M.M., (2003). Dual enrollment programs: Easing transitions from high school to college. *Community College Research Center, CCRC Brief. 17(3) 16*.
- Black Issues in Higher Education (2004). State dual enrollment policies not sufficient to reach students who might benefit most. *21, 19*.
- Blair, J. (1999). More teens blending high school, college. *Education Week, 18, 31*.
- Bonesteel, M., & Sperry, S. (2002). Building a better bridge. *Principal Leadership (High School) 2, 9*.
- Boswell, K. (2000). Building bridges not barriers: Public policies that support seamless K-16 education. *The Center for Community College Policy*. Denver, CO, Education Commission of the States. Retrieved October 23, 2005, from <http://www.communitycollegepolicy.org/pdf/BuildingBridgesPolicyBrief.pdf>

- Boswell, K. (2001). Dual enrollment programs: Accessing the American dream update on research and leadership. *Office of Community College Research and Leadership, 13(1), 1-5.*
- Boswell, K. (2001). State policy and postsecondary enrollment options: Creating seamless systems. *New Directions for Community Colleges, 113, 7-14.*
- Brown, D. W., Opperman, J., & Murdock, S., (2001). Closing the gaps by moving every Texan forward November 28, 2001: How the state's changing demographics can affect the higher education plan and how our state already is responding to it. Retrieved October 23, 2005, from <http://www.thecb.state.tx.us/AdvisoryCommittees/HEP/BrownMurdockOpperman.pdf>
- Bunch, C. & Barrax, J. (1993). *College incentive program*. Raleigh, NC: Shaw University.
- Burns, H. & Lewis, B. (2000). Dual enrolled students' perceptions of the effect of classroom environment on educational experience. *The Qualitative Report 4, 1-2*. Retrieved October 28, 2005, from <http://www.nova.edu/ssss/QR/QR4-1/burns.html>
- Cabrera, A. F., & La Nasa, S. M. (2002). Hispanics in higher education. In Forest, J. JF & Kinser, K. (Eds.), *Higher Education in the United States: An Encyclopedia*. Santa Barbara, CA: ABC-CLIO.

- Catron, R. (2001). Dual enrollment in Virginia. *New Direction for Community Colleges*, 113.
- Chapman, B. (2001). A model for implementing a concurrent enrollment program. *New Directions for Community Colleges*, 113, 15-22.
- Collison, M. (1999). Hispanics' educational challenge. *Community College Week*, 12, 5, (3).
- Community College Research Center (2003). State policies and dual enrollment program variation. Retrieved November 18, 2005, from <http://www.ed.gov/about/offices/list/ovae/pi/cclo/cbtrans/spb.pdf>
- Community College Week (2000). Most students take the detours on road to degree. 13, 9 (12).
- Denzin, N.K., & Lincoln, Y.S. (1994). Handbook of qualitative research. Thousand Oaks, CA: SAGE Publication.
- ECS Center for Community College Policy (2001). Postsecondary options: Dual/concurrent enrollment. Retrieved November 5, 2005, from www.ecs.org
- Education Commission of the States (2001). Postsecondary options: Concurrent/ dual enrollment update. *Center for Community College Policy*, Denver, CO.

- Eisenhart, M.A., & Howe, K.R. (1992). Validity in educational research. In M. LeCompte, W. Millroy, & J. Preissle (Eds.). *The handbook of qualitative research in education* (pp. 642-680) San Diego: Academic Press.
- Emeagwali, N. (2005). States' varying policies regarding dual enrollment programs. *Technique*, 80, 1
- Everett-Hayes, L. (2004). Colleges struggle to boost Hispanic numbers/matriculation of blacks and white is ahead of target. *The Houston Chronicle*. B, 9. Retrieved 2006, from <http://www.greatschools.net/modperl/achievement/tx/3510>
- Finn, P. (1999). *Literacy with an attitude*. State University of New York Press, Albany.
- Forde, M. (n.d.). Houston Community College-Northeast: Your road to opportunity starts here. (p. 1)
- Fry, R. (2002). Latinos in higher education: Many enroll too few graduates. *Pew Hispanic Center*. Retrieved January 18, 2006, from <http://pewhispanic.org/files/reports/11.pdf>
- Harrell, P. E. & Forney, W. (2003). Ready or not, here we come: Retaining Hispanic and first-generation students in postsecondary education. *Community College Journal of Research and Practice* 27, 147-156.

HCC Comparative Enrollment Report, fall 2006: Enrollment by career type

within Location, *HCCS*. Retrieved 2006, from

http://rptserver/reports/ENRL_RPTS/ComparativeHeadCount/

HCC Comparative Enrollment Report, fall 2006, October 30, 2006 and October

31, 2005, *HCCS*. Retrieved 2006, from

http://rptserver/reports/ENRL_RPTS/ComparativeHeadCount/

Heintze, M.R., Hays, S.J. (n.d.). Closing the gaps in Texas: The Texas tech

university pathway program. *Journal of Higher Education Strategists*. 1, 167-190.

Helfgot, S. R. (2001). Concurrent enrollment and more: Elements of a successful

partnership. *New Directions for Community Colleges*. 113.

HISD Connect: Facts and figures, 2006-2007, Retrieved October 15, 2006, from

<http://www.houstonisd.org/HISDConnectDS/v/index.jsp?vgnextoid=62c6757761efc010VgnVCM10000052147fa6RCRD&vgnextchannel=eb495c6923dd1110VgnVCM10000028147fa6RCRD>

HISD Connect: HISD Students Pass Record Number of Advanced Placement

Exams (2006). Retrieved June, 2007, from

http://www2.houstonisd.org/HISD/portal/article/front/0,2731,20856_142973398_193424791,00.html

- Hoffman, N. (2003). College credit in high school: increasing postsecondary credential rates of underrepresented students. *Jobs for the Future*, Boston, MA.
- Hoffman, N. (2005). Add and subtract: Dual enrollment as a state strategy to increase postsecondary success for underrepresented students. *Jobs for the Future*.
- Houston Community College System Fact Book 2005-2006. *HCCS*. Retrieved April 15, 2006, from www.hccs.edu.
- Houston Independent School District (2005-2006). *Research Report on an Educational Program*. Advance Placement (AP) Monitoring System Report 2005-2006. Department of Research and Accountability.
- Houston Independent School District Profiles 2005-2006. Retrieved January 2006, from http://dept.houstonisd.org/profiles/Houston_HS.pdf
- Immerwahr, J. (2000). Americans view higher education as key to American dream: Black and Hispanic parents value higher education the most. *The National Center for Public Policy and Higher Education*. Retrieved January 18, 2006, from http://www.highereducation.org/news/news_050300.shtml

- Janesick, V. J. (1994). The dance of qualitative research design: metaphor, methodolatry, and meaning. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research*. Thousand Oaks, CA: Sage Publications.
- Jordan, T. (2001). Dual enrollment options: Columbus state community college model for successful implementation. *New Directions for Community Colleges, 113*.
- Justiz, M. J. (1995). Hispanics in higher education. *Hispanic, 8*, 1.
- Karp, M., Bailey, T., Hughes, K., & Fermin, B. (2004). State dual enrollment policies: Addressing access and quality. Community College Research Center, Teachers College, Columbia University. U.S. Department of Education, Office of Vocational and Adult Education.
- Karp, M., Bailey, T., Hughes, K., & Fermin, B. (2005). State dual enrollment policies: Addressing access and quality. Community College Research Center, Teachers College, Columbia University. ISSN 1526-2049, 26.
- Karp, M., Bailey, T., Hughes, K., & Fermin, B. (2005). Update to state dual enrollment policies: Addressing access and quality. Community College Research Center, Teachers College, Columbia University. U.S. Department of Education, Office of Vocational and Adult Education.

- Legard, R., Keegan, J., & Ward, K. (2003). In-depth interviews. In Ritchie, J. & Lewis, J. (Eds.), *Qualitative research practice: a guide for social science students and researchers* (pp. 138-169). SAGE Publications.
- Lewis, J. (2003). Design issues. In Ritchie, J. & Lewis, J. (Eds.), *Qualitative research practice: a guide for social science students and researchers* (pp. 47-76). SAGE Publications.
- Lieb, D. A. (1999). Arkansas places restrictions on dual enrollment programs. *Community College Week*, 12, 117.
- Lords, E. (2000). New efforts at community college focus on underachieving teens. *Chronicle of Higher Education*, 46, 43, (45).
- Lum, L. (2004). Not your father's community college: New programs, increased visibility boost two-year institutions' appeal. *Black Issues in Higher Education*. 21, 9.
- Martinez, M. C. (2004). Meeting the challenges of population growth and the future demand for postsecondary education considerations for state higher education policy. *Education Commission of the States*. Retrieved May 18, 2006, from <http://www.ecs.org/clearinghouse/54/60/5460.pdf>
- Martinez, M., & Fernandez, E. (2004). Latinos at community colleges. *New Directions for Community College*, 105.

- McCarthy, C. (1999). Dual enrollment programs: Legislation helps high school students enroll in college courses. *Journal of Secondary Gifted Education*, 11(1), 24-34.
- McGee, P. (2004). Blueprint for success: Educators want more Hispanics to earn diplomas. Retrieved October 28, 2005, from http://www.utwatch.org/oldnews/fwst_latinos_9_28_04.html
- McGuinness & Jones, D. (2003). Narrowing the gaps in educational attainment within states: A policymaker's guide to assessing and responding to needs for community college services. *Education Commission of the States*. Retrieved February 5, 2006, from <http://www.communitycollegepolicy.org/html/Issues/access/pdf/NCHEMS Report.pdf>
- Merriam, S. (2001). Qualitative research and case study applications in education. San Francisco: Jossey-Bass.
- Mees, R., & Schroeder, J. (2001). Dual credit partnerships. *On Research and Leadership Update*, 13(1), 8-9.
- Meyer, H. (2004). Report examines dual enrollment, suggests reforms. *Community College Week*, 17, 2, 10.
- Miles, M.B. & Huberman, A. (1994). Qualitative data analysis: An expanded source book (2nd ed.). Thousand Oaks, CA: SAGE Publications.

- Moore, D. (2005). Dual enrollment programs. *School Planning and Management, 44*(5).
- Murdock, S., White, S, Hoque, M., et al. (2003). The new Texas challenge: Population change and the future of Texas. Texas A&M University Press.
- National Center for Education Statistics Institute of Education Sciences (2003). Status and trends in the education of Hispanics. *U.S. Department of Education*. Retrieved March 3, 2005, from:
<http://nces.ed.gov/pubs2003/2003008.pdf>
- National Commission on the High School Senior Year (2001). The lost opportunity of senior year: Finding a better way, summary of findings.
- Noel-Levitz (2002). Communication flow theory. *A USA Group company*, p. 31.
- Noel-Levitz (April, 2002). Campus visit best practices: What works in campus visit programming. Planning Tips.
- Oburn, M. (2005). Building a culture of evidence in student affairs. *New Directions for Community Colleges*, 131. Wiley Periodicals, Inc.
- Patton, Q. M. (1990). *Qualitative evaluation and research methods*. London: SAGE Publications.
- PEIMS EDIT + REPORTS DATA REVIEW (2007). *Students by Sex, Ethnicity and Grade, 2006-2007 Fall Collection, Resubmission*.

- Perna, L. W. & Titus, M. A. (2005). The relationship between parental involvement as social capital and college enrollment: An examination of racial/ethnic group differences. *The Journal of Higher Education*, 76, 5, 485-518.
- Peterson, M., Anjewierden, J., & Corser, C., (2001). Designing an effective concurrent enrollment program: A focus on quality of instruction and student outcomes. *New Directions for Community College*, 113
- Pew Hispanic Center (2005). Hispanics: A people in motion. Washington, D.C., Retrieved March 6, 2006, from: <http://pewhispanic.org/files/reports/40.pdf>
- Public School Review. Retrieved January 30, 2007, from http://www.publicschoolreview.com/agency_schools/stateid/TX/county/48201/agency/Houston_Isd
- Rafn, J.H. (2002). Dual enrollments: The Northeast Wisconsin Technical College Experience. Presentation to the Community College Research Center, Teachers College, Columbia University, New York, NY.
- Ritchie, J., Lewis, J., & Elam, G. (2003). Designing and selecting samples. In Ritchie, J. & Lewis, J. (Eds.), *Qualitative research practice: A guide for social science students and researchers* (pp. 77-108). SAGE Publications.
- Rossman, G., & Rallis S. (2003). *Learning in the field: An introduction to qualitative research*. Thousand Oaks, CA: SAGE Publication.

- Roueche, J.E., and Roueche, S.D. (2000). Facing the new millennium: Making friends with the future. *Community College Journal*, p. 19.
- Roussel, P. (2007). *Presentation to the Greater Heights Area Chamber of Commerce*. Paper presented at the Greater Heights Scholarship Luncheon, Houston, TX.
- Ruppert, S. (2003). *Closing the college participation gap: A national summary*. Education Commission of the States. Center for Community College Policy. (ERIC Document Reproduction Service No. ED480470)
- Saenz, V. B. (2002). *Hispanic students and community college: A critical point for intervention*. (ERIC Document Reproduction Service No. EDO-JC-02-08)
- Sanders, T. (2003). *Closing the college participation gap*. Denver, CO: Education Commission of the States.
- Schmidt, P. (2003). Academe's Hispanic future. *The Chronicle of Higher Education: A Special Report*, 50 (14), A8
- Schwalm, D. E. (1991). High school college dual enrollment. *WPA: Writing Program Administration*, 12 (1-2), 51-54.
- Shapleigh, E. (2007). Texas borderlands: Frontier of the future. In Texas higher education in the Texas borderlands-Learning and earning. Retrieved June 2007, from http://shapleigh.org/reporting_to_you

- Sorensen, S., Brewer, D. J., Carroll, S., & Bryton, E. (1995). Increasing Hispanic participation in higher education: A desirable public investment. Retrieved November 5, 2005, from http://www.rand.org/pubs/issue_papers/IP152/index2.html
- Suro, R. & Singer, A. (2002). Latino growth in metropolitan America: Changing patterns, new locations. *Center on Urban & Metropolitan Policy and the Pew Hispanic Center*. Retrieved April 14, 2005, from: <http://www.brookings.edu/es/urban/publications/surosinger.pdf>
- Texas Higher Education Coordinating Board (2000). *Closing the gaps: The Texas higher education plan*. Austin, Texas.
- Texas Higher Education Coordinating Board (2004). *Preparing for the emerging Texas: Report on the effectiveness and efficiency of state financial aid programs to help close the gaps in participation and success*. Austin, Texas.
- Texas Higher Education Coordinating Board (2005). *Closing the gaps by 2015: 2005 Progress report*. Austin, Texas.
- Texas Higher Education Coordinating Board (2005). *Participation forecast, 2005-2015 (formerly Study Paper 27, Enrollment Forecast) Texas institutions of higher education*. Austin, Texas.
- Texas Higher Education Coordinating Board (n.d.). *Access and equity 2000: Ensuring the future of Texas*. Austin, Texas.

Texas Higher Education Coordinating Board (n.d.). *Chapter 4. Rules applying to all public institutions of higher education in Texas, subchapter d, dual credit partnership between secondary schools and Texas public colleges.* Austin, Texas.

Texas Higher Education Coordinating Board (n.d.). *Participation and success.* Austin, Texas.

Texas Higher Education Coordinating Board (n.d.). *State of Texas: Priority goal for higher education.* Austin, Texas.

Texas Higher Education Coordinating Board (2006). *Texas higher education facts – 2006.* Austin, Texas.

Troumpoucis, P. (2004). From here to there. *Community College Week*, 6-9.

U.S. Census Bureau (2000). *Table DP-1. Profile of General Demographic Characteristics: 2000, Geographic area: Texas*

U.S. Department of Education (2005). *President's New High School Initiative, Other Proposed Programs Tackle Issues Important to Hispanics.*

Retrieved January 2006, from

<http://www.ed.gov/news/pressreleases/2005/02/02232005a.html>

Wetzstein, C., Fagan, A., Glanz, W. (2002). Urging 'dual enrollment.' Insight on the News. *Research Library*, 18, 21, 33.

Williams, T. (2002). *Are you ready for the next generation of students? A five point plan to success in a new world*. Noel-Levitz White Paper. Denver, CO. Retrieved January 13, 2006, from https://www.noellevitz.com/NR/rdonlyres/E323C5D8-5E46-461B-8443-E443B9E457C5/0/next_gen.pdf

VITA

Oralia R. Green was born in Fort Stockton, Texas, to parents, Erminia and Estan Rodriguez. She was raised in Dallas, Texas, where she received her early education.

In 1975, she received her Associate of Arts degree from Houston Community College and a Bachelor of Arts with a major in Sociology from the University of Houston. In 1992 she received her M.Ed. in Higher Education Administration at the University of Houston. Then in 1999 she received the Graduate Certificate in Enrollment Management at the University of Florida at Gainesville.

Oralia is proficient in enrollment management. Having worked at Houston Community College as a Financial Aid Officer, she currently works as an assistant dean of student development at Houston Community College-Northeast.

Permanent address is: 7807 Cadenza Court, Houston Texas 77040

The dissertation was typed by the author.